DEBRIS REMOVAL OPERATIONS PLAN WITH PROJECT SPECIFICATIONS

for the

BOLES FIRE INCIDENT
WEED, CALIFORNIA

VERSION 4.1

January 9, 2015

Prepared By:
Todd Thalhamer, P.E.
Operations Chief
CalRecycle
Solid Waste Cleanup Program
1001 “I” Street
Sacramento, California 95814

For:
City of Weed
550 Main Street
P.O. Box 470
Weed, California

SUMMARY

During a local or state declaration of a State of Emergency, rapid response action is necessary to protect response personnel and the public from potential exposure to uncontrolled hazardous materials and substances. Previous disasters have demonstrated exposures to response personnel, and have shown that residents returning to their communities have encountered hazardous materials contained within the dust and debris. Without the proper identification, handling, and removal of hazardous materials and debris (including asbestos), the public will continue to be at the risk of exposure. Conducting emergency removal actions will mitigate threats posed by the uncontrolled hazardous substances that may be encountered from a natural or man-made disaster.

CalRecycle staff has prepared this **Debris Removal Operations Plan with Project Specifications (Operations Plan)** for City of Weed in response to Executive Order B-27-14 issued by the Office of the Governor of California on October 6, 2014. The purpose of this Operations Plan is to identify the approach for removing debris, waste, and hazardous materials required under a local or state Proclamation of a State of Emergency. The Operations Plan is based on California Environmental Protection Agency's "*Guidance for Conducting Emergency Debris, Waste and Hazardous Material Removal Actions Pursuant to a State or Local Emergency Proclamation*" dated October 7, 2011and identifies best management practices for undertaking the removal of debris and hazardous materials (including asbestos) from residential and commercial structures after the Boles Fire Incident. These best management practices and standardized methods will provide a consistent approach for conducting emergency removal and cleanup actions to protect response personnel, the surrounding community, public health, and the environment. This document does not discuss debris from industrial sites.

The Operations Plan will be implemented by CalRecycle and all contractors under its control and direction. This plan is considered a "working document" that will be revised throughout the project progression and will be updated to include other supporting documents such as a site-specific health and safety plan, community health and safety plan, confirmation sampling plan and/or additional monitoring and sampling plans as appropriate and available.

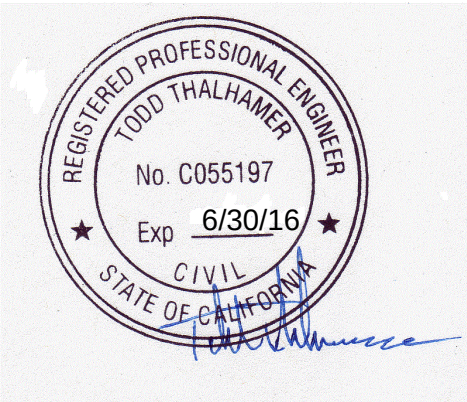
This version includes updates the project participants and responsibilities table, information regarding the Governor's Executive Order, confirmation sampling procedures and cleanup goals, and describes procedures for abandoning old groundwater wells. All information provided in this plan is based on knowledge of field conditions at the time of the revision and personal experience and knowledge of previous coordinated debris removal projects, environmental removal projects, structure fires, and waste management practices in the United States and abroad.

At the request of a homeowner or contractor, a separate but similar project specification can be prepared if a homeowner chooses to clean up their properties independently and not participate in the state organized and sponsored cleanup.

The findings, information, and professional opinions are presented in accordance with generally accepted professional engineering methods and waste management strategies and are limited to the Boles Fire Incident area. Any questions or comments concerning this report should be referred to Mr. Todd Thalhamer at 916.341.6356 or his e-mail at todd.thalhamer@calrecycle.ca.gov.

Mr. Thalhamer is a registered Professional Engineer in the State of California and his license number is C055197. His prior fire experience includes daily observations and inspections, direct management of emergency resources and personnel, evaluation of suppression tactics, assessment of environmental impacts, design of environmental remediation efforts, and evaluation of potential impacts from waste fires.

Mr. Thalhamer has prepared this report and his seal as a Registered Civil Engineer in the State of California is affixed below. This Operations Plan is only valid for the Boles Fire Incident and the use of this plan for any other site is neither valid nor warranted.



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1 Introduction

The potential for widespread toxic exposures and threats to public health and the environment exists in the aftermath of major disasters. The health effects of hazardous substances releases following earthquakes, floods, and wildfires are well-documented. Exposure to hazardous substances may lead to acute and chronic health effects, and may potentially cause long-term public health and environmental impacts. Uncontrolled hazardous materials and debris pose significant threats to public health through inhalation of dust particles and contamination of drinking water supplies. It is critical to address hazardous substance and remove debris as quickly as possible to abate these impacts. State and local governments may need to enter private property to clear ash and debris or demolish and remove private structures deemed unsafe to eliminate immediate threats to life, public health, and safety.

On October 6, 2014, the Governor of California, Edmund G. Brown Jr., issued Executive Order B-27-14, which declared a state of emergency in Siskiyou County as a result of a wildfire (Appendix A). The Executive Order stated that all State agencies with responsibility, regulatory authority or expertise related to recovery efforts in connection with the Boles Fire shall cooperate fully and act expeditiously in coordination with the California Environmental Protection Agency (CalEPA), to facilitate the removal of ash and debris from fire and assist in the environmental restoration of the City of Weed.

The Executive Order suspended statutes, rules, regulations and requirements to the extent they apply to the following activities: (a) removal, storage, transportation, and disposal of hazardous and non-hazardous solid waste and debris resulting from the wildfires that have burned and continue to burn in Siskiyou County and that are subject to the jurisdiction of agencies within the CalEPA and the California Natural Resources Agency; and (b) necessary restoration and rehabilitation of timberland, streams, rivers, and other waterways. Both Secretaries shall use sound discretion in applying the Executive Order to ensure that the suspension serves the purpose of accelerating cleanup and recovery, while at the same time protecting public health and the environment.

The Executive Order allowed state agencies to enter into contracts to arrange for the procurement of materials, goods, and services necessary to quickly remove dangerous debris, repair damaged resources, and restore and protect the impacted watershed. Because strict compliance with the provisions of the Government Code and the Public Contract Code applicable to state contracts would prevent, hinder, or delay these efforts, applicable provisions of those statutes, including but not limited to travel, advertising and competitive bidding requirements, were suspended to the extent necessary to address the effects of the fires.

Lastly, the Executive Order stated that State agencies shall work with local officials to design and implement a comprehensive structural debris removal plan that will treat the removal of structural debris as a single organized project.

The Department of Resources Recycling and Recovery (CalRecycle) was tasked to design and implement the structural debris removal plan for the Boles Fire Incident in Weed, California which is represented by this Operations Plan. Information related to this project was obtained from the Office of the Governor, the County of Siskiyou, and the City of Weed. The Operations Plan will be reviewed by federal, state and local agencies and comments will be incorporated when appropriate. This document is “working document” and will be updated as comments are received and consultations are conducted with federal, state, county, and city agencies.

CalRecycle will utilize the Solid Waste Cleanup Program within their Engineering Support Branch to implement and oversee the project. CalRecycle will work with environmental contractors and consultants under contract to CalRecycle to begin the removal process from homes sites subsequent to Right-of-Entry Permits for debris removal on private property being signed by the individual property owners.

CalRecycle has authorized its remediation contractor Pacific States Environmental Contractor, Inc. and Sukut Construction, Inc. (CONTRACTORS) to perform the structural debris removal for the City of Weed. Pacific States Environmental, Inc. and Sukut Construction are licensed general California Contractors (License # 723241 and License # 554278, respectively) with the following classifications, A-General Engineering, C21-Building Moving, Demolition, HAZ-Hazardous Substances Removal, ASB-Asbestos (bid only-Pacific States Environmental).

1.1 Purpose

The purpose of this Operations Plan is to provide the approach for managing the removal of debris, waste and hazardous material as a result of the Boles Fire Incident in the City of Weed. This plan was based on CalEPA's "*Guidance for Conducting Emergency Debris, Waste and Hazardous Material Removal Actions Pursuant to a State or Local Emergency Proclamation*" dated October 7, 2011, and identifies best management practices (BMP) for undertaking the removal of debris and hazardous materials (including asbestos) from residential and commercial structures after the Boles Fire Incident. These BMPs and standardized methods will provide a consistent approach to conducting removal and cleanup actions to protect response personnel, the surrounding community, public health, and the environment. This document does not discuss the removal of debris from industrial sites.

1.2 Objective

The objective of this Operations Plan is to meet the above requirements and detail the processes and procedures for the debris removal operations. This plan will be provided to the CONTRACTORS as guidance for the state-sponsored debris removal to mitigate known hazards and conditions to limit the impacts to the public, the surrounding environment, and the City of Weed.

Table 1 outlines agencies and project participants and their responsibilities relative to this Operations Plan.

Table 1. Project Participants and Responsibilities

Agency/Company	Contact	Responsibility/Assistance
City of Weed	Earl Wilson, Consultant Incident Commander	Overall management, compliance, public relations, and county approval and oversight.
CalEPA - CalRecycle, Solid Waste Cleanup Program	Todd Thalhamer, P.E. Operations Chief	Management and oversight of operations and cost control.
CalEPA - CalRecycle, Engineering Support Branch	Wes Mindermann, P.E. Branch Chief	Implementation of CalRecycle SWCP requirements authorizing the debris removal, work orders for removal contractors, and invoicing.
CalEPA - Department of Toxic and Substances Control	Nancy McGee	On-site review, clean up goal and confirmation sample review and support of issues related to hazardous substances.
CalEPA Office of the Secretary	Paul Penn	Agency representative responsible for coordinating the overall emergency response at the agency level.
California Office of Emergency	Melinda Stehr Deputy Operations Chief	Agency representative, and technical support for debris removal, oversight of field activities, agency communication and Deputy Operations Chief.
California Air Resources Board (CARB) – Asbestos Enforcement	Jeff Lindberg, Manager Enforcement Division	Agency representative for asbestos enforcement issues.
Anderson Landfill	David Bayley, District Manager	Waste disposal facility for nonhazardous waste and asbestos.
Black Butte Towing		Metal recycling and vehicle towing.
Sousa Ready Mix		Concrete recycling.
Dan Palmer Trucking		Trucking wastes and recyclables.
Pacific States Environmental (Primary)	Pete Timmerman	Prime contractor responsible for removing structural debris and waste.
SUKUT Construction	Todd Gunnell	Secondary Contractor responsible for removing debris and waste.
ARCADIS	James Eisert, P.G. Project Manager	Consultant responsible for field documentation, foundation verification, ash footprint, confirmation sampling, and preparing final reports.
Network Environmental Systems, Inc.	David Durst Industrial Hygienist	Development of the Site Specific Safety Plan, Asbestos Survey and Sampling, Health and Safety Officer.
Menzies' Natives Nursery	Robert Menzies	Arborist, consultant on identification of hazard trees.
Rizzardo Tree Trimming	Kyle Rizzardo	Hazard tree removal.
Freelun Hydroseeding, Inc.	Troy Zollo	Erosion Control (Hydroseeding).

2 Site

2.1 Site Description

The City of Weed, California, is nestled at the base of Mount Shasta in the Cascade Mountains and halfway between San Francisco and Portland as shown in Figure 1. The areas impacted by the Boles Fire Incident is shown in Figure 2. Two branches were identified for the debris removal project as shown in Figure 3. The Northern Branch includes a part of Angel Valley with home sites located on Oak Street, Morris Street, Pine Street, Jackson Street, Center Street, Arbaugh Street, and Broadway Street as shown in Figure 3a. The Southern Branch home sites and other structures on Hillside Street, South Davis Avenue, Woodridge Court, Shasta Avenue, Genoa Street, Venice Street, Spur Street, White Avenue, Olive Street and Cedar Avenue as shown in Figure 3b.

Approximately 150 homes and other structures were destroyed by the fire. One section of the Elementary School was also damaged, along with the Library and Community Center. Individual legal parcels of privately owned home sites were identified. The sites vary in composition. Some contain just foundations, ash and metal debris, while others are partially burned.

The Operations Plan will cover the removal of all structural debris, waste, ash, metals, and hazard trees from the areas affected by the fire as indicated in the site maps contained in Section 2.3. The CalRecycle Operations Chief will maintain the authority to make any necessary decisions regarding the removal of debris.

2.2 Site Ownership

The owner of each affected site will be identified by the City of Weed. The City of Weed will work with each owner to obtain legal authority to enter the property by obtaining an executed Right-of-Entry Permit (ROE). A sample of the ROE is provided in Appendix B. CalRecycle and its CONTRACTORS may not perform work until provided with a copy of the executed ROE.

2.3 Vicinity and Site Maps

The area affected by the Boles Fire Incident is located in the City of Weed. The work zones for debris removal activities will be initial divided into two branches with multiple divisions. Figures 1 through 3 shows the project area and branches.

Figure 1. General Location Map (Source: Cal OES/ CalFire, 2014)

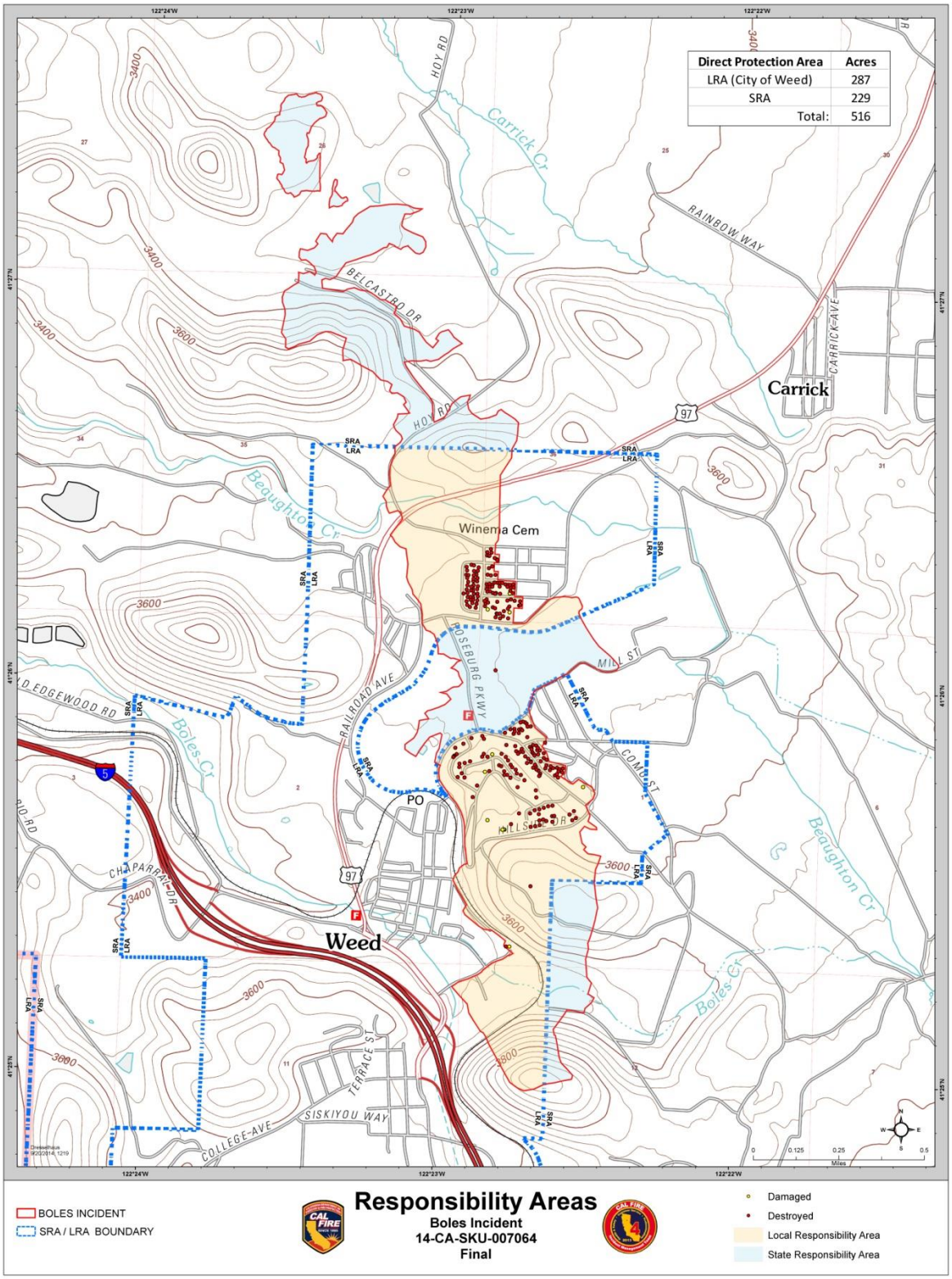


Figure 2. Pre-Incident Condition (Source: Cal OES, 2014) Approximately 150 Homes.

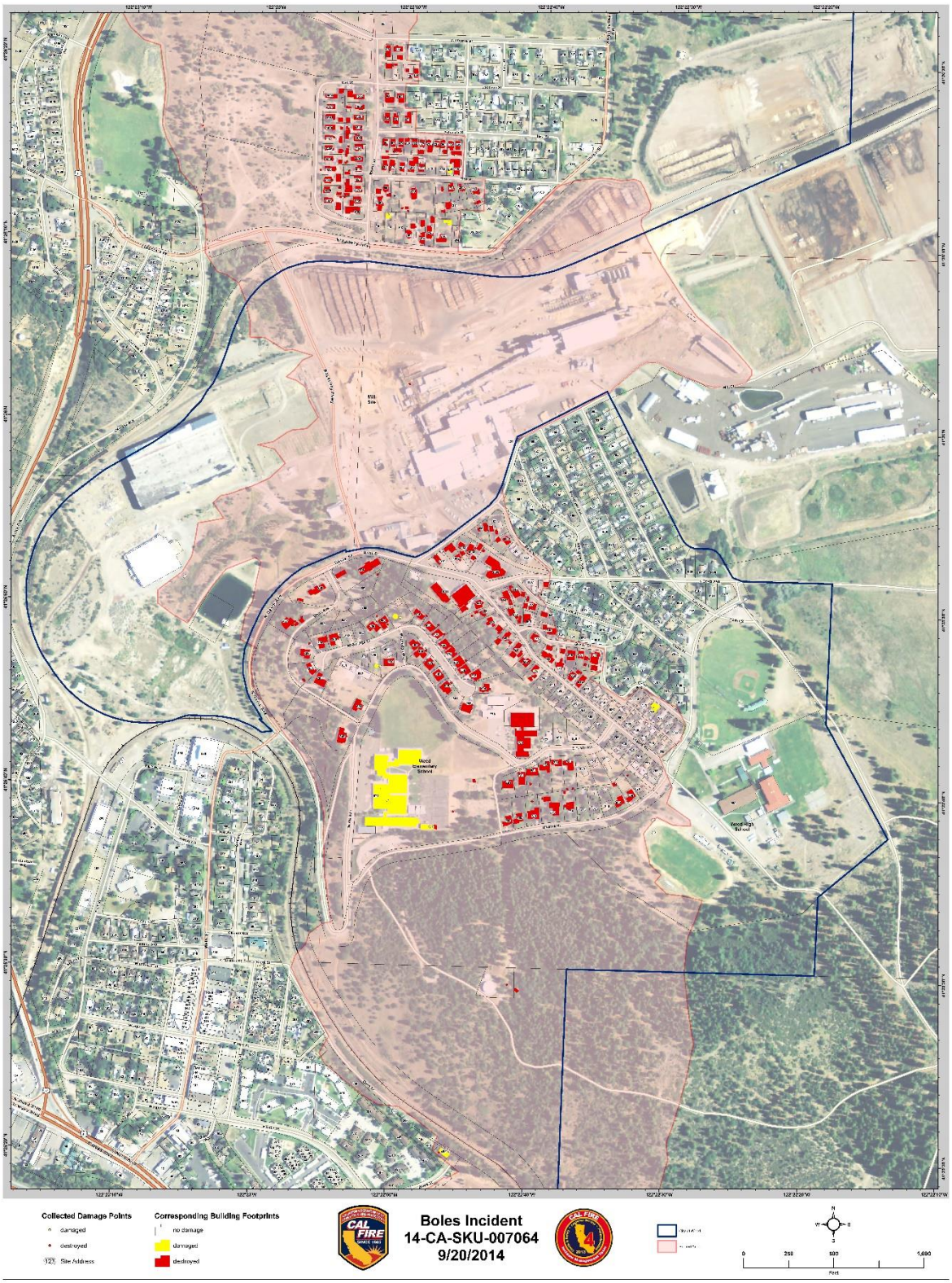


Figure 3. Approximate Branch Locations, Weed CA

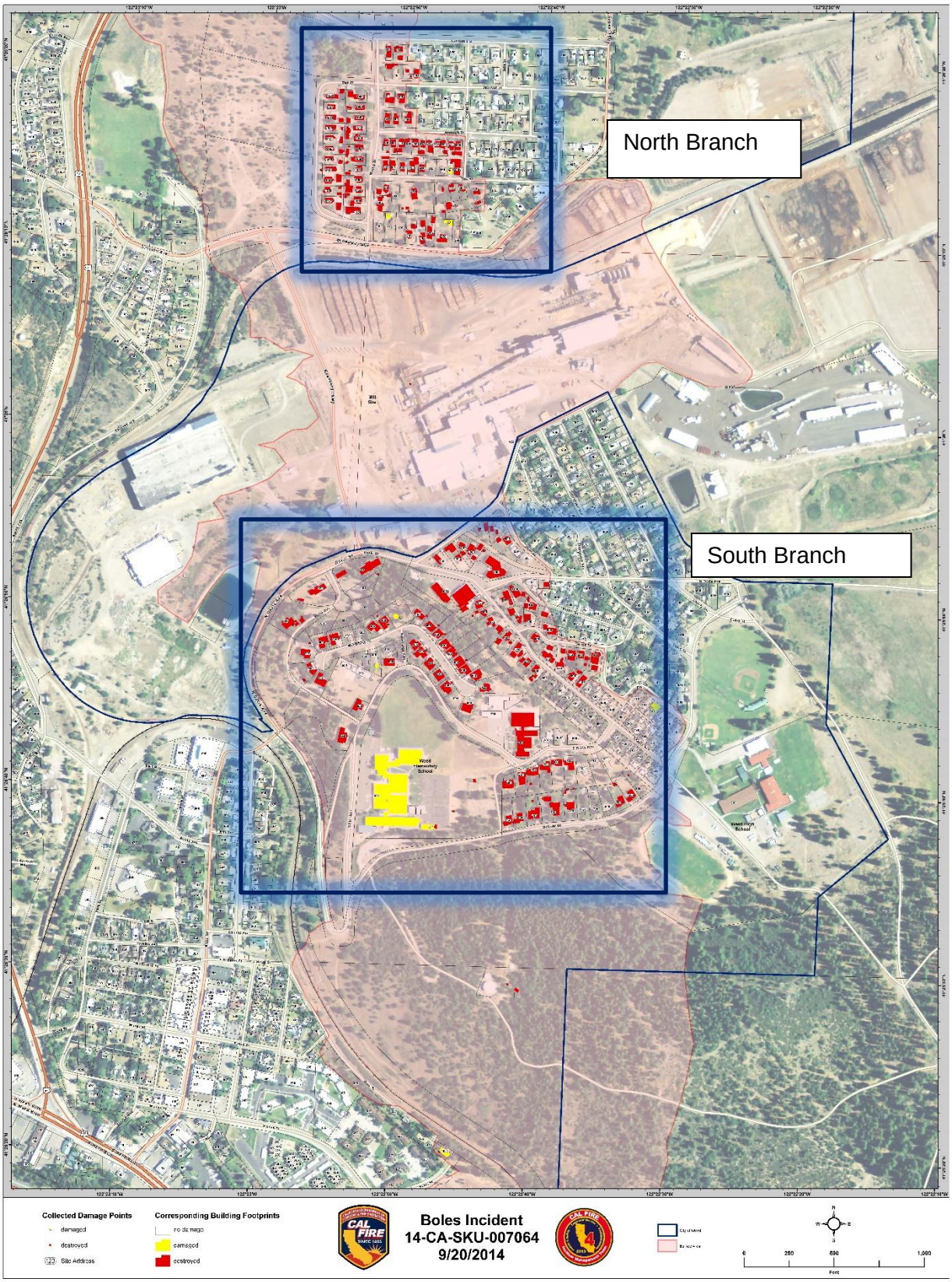


Figure 3a. Impacted Homes - North Branch (Source: Cal OES, 2014)

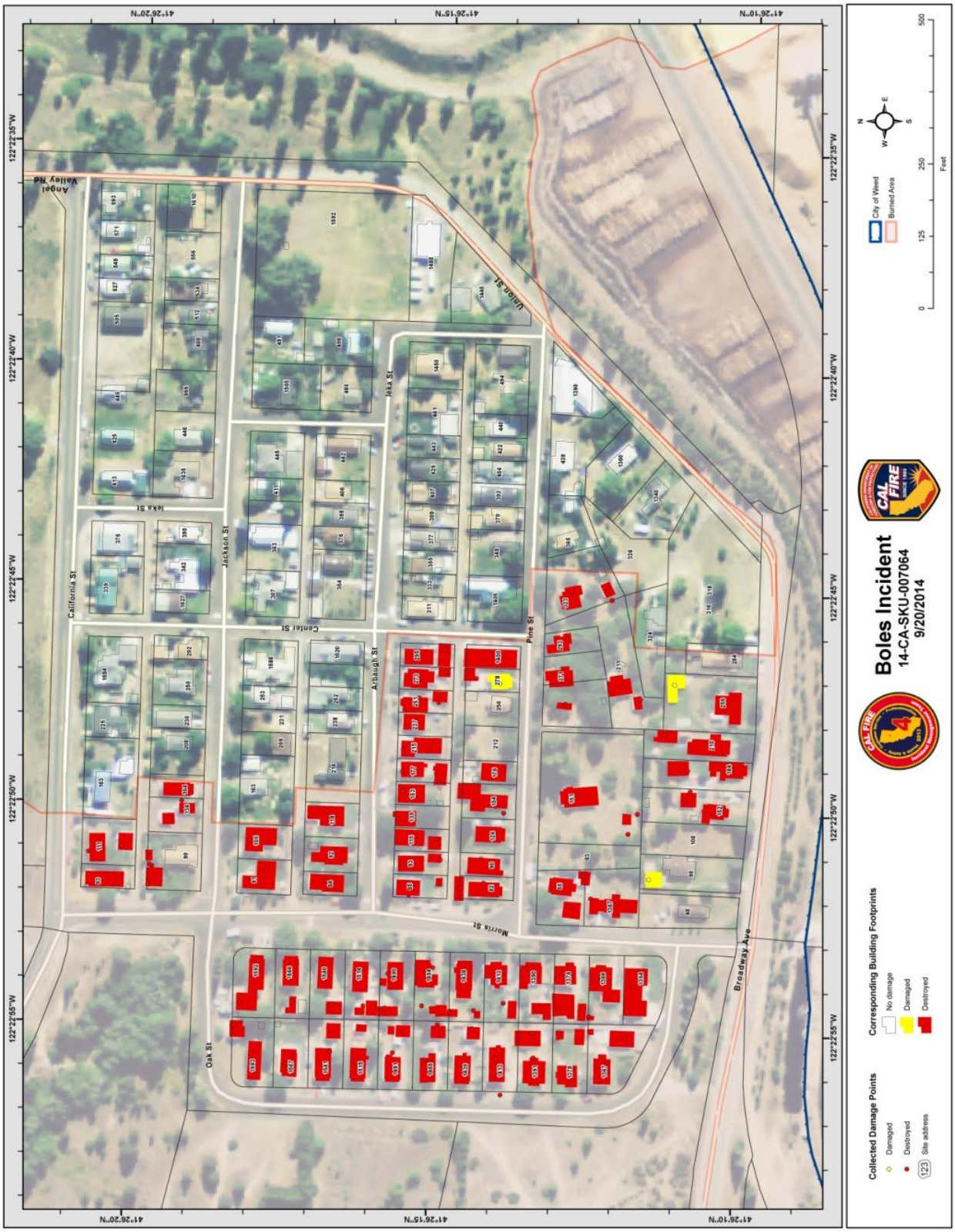
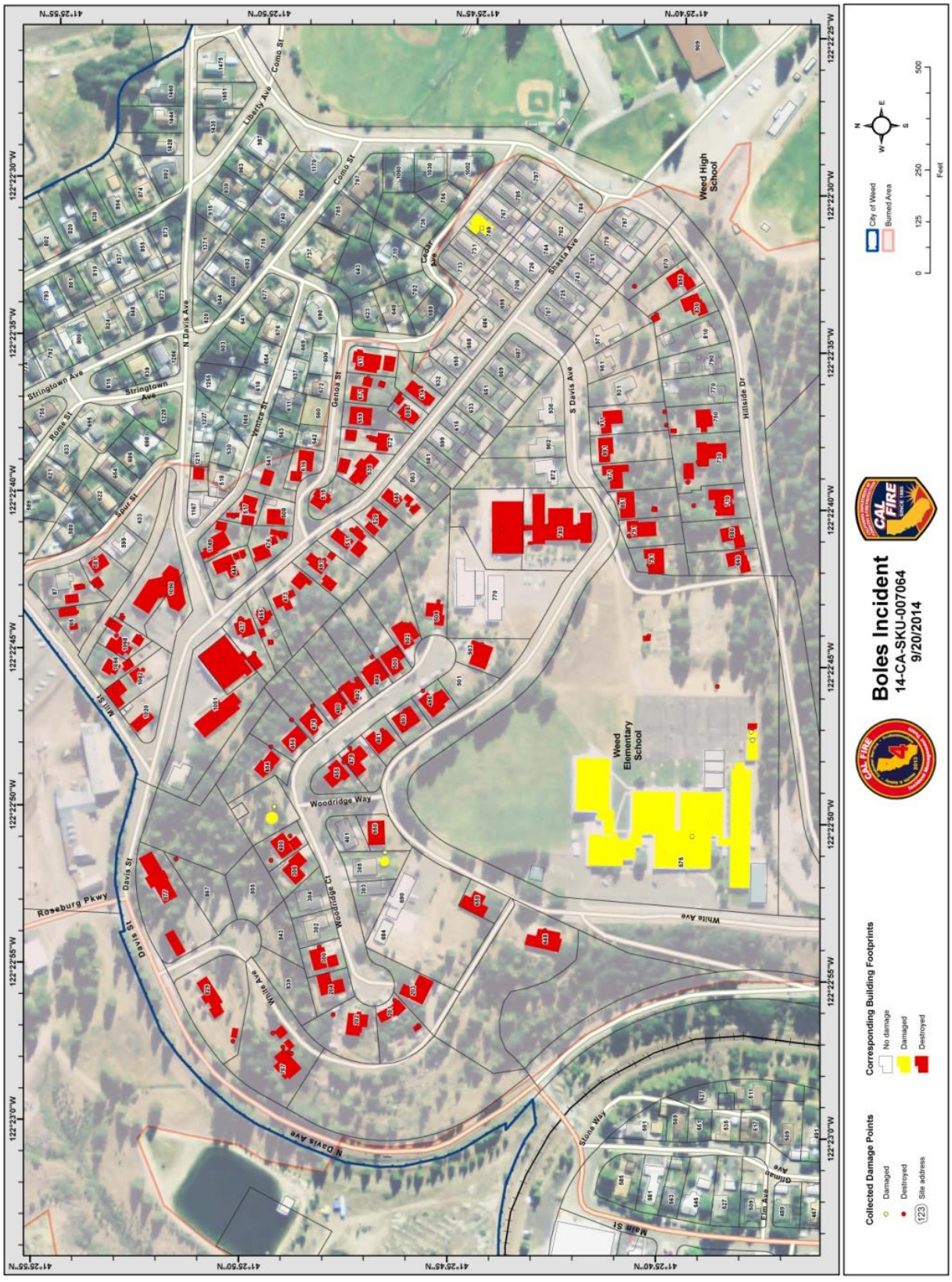

Boles Incident
14-CA-SKU-007064
9/20/2014
City of Weed
Burned Area
Feet
0
125
250
500
Collected Damage Points
Damaged
Destroyed
Site address
Corresponding Building Footprints
No damage
Damaged
Destroyed
Angel Valley Rd
16Ka St
California St
Jackson St
Center St
Arbaugh St
Iska St
Pine St
Ulloa St
Morris St
Broadway Ave
Oak St
122°22'35"W
122°22'40"W
122°22'45"W
122°22'50"W
122°22'55"W
41°26'20"N
41°26'15"N
41°26'10"N

Figure 3b. Impacted Homes - South Branch (Source: Cal OES, 2014)


Boles Incident
14-CA-SKU-007064
9/20/2014
Collected Damage Points
Damaged
Destroyed
Site address
Corresponding Building Footprints
No damage
Damaged
Destroyed
City of Weed
Burned Area
Feet
Weed High School
Weed Elementary School
Como St
Liberty Ave
Cedar Ave
Shasta Ave
S Davis Ave
Hillside Dr
N Davis Ave
Stringtown Ave
Rome St
Sour St
Genoa St
Venice St
Mill St
Woodridge Way
Woodridge Ct
Roseburg Pkwy
Davis St
N Davis Ave
White Ave
Main St
Gilmore Ave
Elm Ave
Storer Way

2.4 Site Characterization

Ash and debris from residential structures burned by fires can contain concentrated amounts of heavy metals, such as antimony, arsenic, cadmium, copper, lead, and zinc as discussed in the "*Assessment of Burn Debris - 2007 Wildfires San Bernardino and San Diego Counties, California*" (http://www.calepa.ca.gov/Disaster/Fire/).

The residual materials such as stucco, roofing, floor tile, linoleum, fireplaces, furnaces, vinyl tiles and mastic, sheetrock and joint compound, asbestos cement pipe, exterior home siding, thermal system insulation and other building materials commonly used in homes built before 1984 may also contain other chemicals of concern such as asbestos.

An estimate of 35,000 tons of waste and debris have been identified for removal. This value assumes that 150 structures were destroyed of similar size and composition as those from the Angora Fire in Lake Tahoe shown in Table 2.

Table 2. Estimated Amount of Debris per Home Site[1]

MATERIAL	Average Tonnage
Soil and Debris	60 to 120
Ash and Debris	20 to 60
Concrete Debris (Recycle)	20 to 40
Brick	0 to 5
Metal Debris (Recycle)	5 to 10
Other (Trees, drainage, etc.)	0 to 50

[1] Estimated based on tonnages removed from Tahoe 2007

2.5 Removal Costs

The overall cost of the Weed debris removal project is estimated to range from $1.0 million to $5.0 million dollars. Removal costs may range from $20,000 for the smaller homes to as much as $60,000 for large homes with substantial concrete features, retaining walls, and foundations. This value assumes an average of $20,000 to $30,000 for debris removal and $3,000 for environmental sampling and reports per home site based on previous similar experiences. Removing trees considered a hazard from public areas and private lots may cost an additional $200,000. Actual costs may vary based on site-specific conditions in the field.

Project costs that can be directly attributed to each home site will be tracked on a per home site basis. Other costs that cannot be directly attributed to a home site but is necessary such as dust control (watering), street sweeping, and project management will be shared by each home site. Any costs for community health and safety or monitoring, activities associated with removal of structures, trees, debris or other features on public property will be estimated and approved by the Incident Commander and Operations Chief and will not be borne by private homeowners.

2.6 Known Hazards

The type of number of known hazards will depend on each sites' specific conditions such as how much of the structure is remaining, the age of the structure, the building materials used,

and status of trees. If only ash and debris are present, the home site is expected to contain elevated levels of heavy metals and possibly asbestos.

The Department of Toxic Substances Control (DTSC) conducted a preliminary hazardous waste assessment for ACM in the impacted area on September 23 through 27, 2014. DTSC found ACM in much of the impacted area. As such, **all responders should be aware that ACM is present and that asbestos is a human carcinogen with no known risk-free levels of exposure**.

Fall hazards are also present on sites with chimneys, partially remaining structures, and burned trees. Physical hazards (i.e., slips, trips, and falls) are also present from exposed foundations, glass, metals and debris. Additional hazards may be present if hazardous material or medical wastes are discovered during the removal. Utilities, such as electrical, gas, cable, telephone, and sewer, are also present and must be identified during debris removal. The weather may also pose potential hazards from fog, rain and high winds.

2.7 Asbestos Hazards

Recent residential debris cleanup activities by CalRecycle and DTSC have identified inconsistent interpretation of the policies and regulations for conducting emergency debris removal actions throughout state. The main issue is whether or not the structural ash and debris from a wildland fire or other large-scale disaster should be treated as asbestos containing material (ACM) under the National Emissions Standards for Hazardous Air Pollutants (NESHAP) due to the assumption that the ash and debris may contain asbestos. DTSC currently classifies asbestos-containing material as hazardous waste if the waste contains more than one percent (>1%) friable asbestos. Some California Air Quality Management Districts (AQMD) have determined all the ash and commingled debris from a structural fire event should be managed as a California hazardous asbestos containing waste in accordance with the federal asbestos NESHAP and local air quality regulations. However, other air districts have not mandated this requirement and have cited the NESHAP exemption for single family homes or if the structure has been totally destroyed by a natural disaster. The varying requirements have resulted in inconsistent cleanup and waste disposal practices for local governments and homeowners throughout the state during disasters.

However, one of the lessons learned from the past incidents includes requesting an asbestos consultation from the local AQMD to assist with the varying interpolations of the ACM regulations and requirements. Since Siskiyou County is in one of the 19 out of 35 air districts (See Figure 5) that is considered a “non-delegated” air district, CalEPA and CalRecycle requested a consultation on how to handle the asbestos contain waste in the fire disaster zone from the California Air Resources Board.

Figure 4. Non-Delegated Air Districts under the California Air Resources Board

On September 24, 2014, CalEPA and CalRecycle received guidance and comments on the handling of asbestos contain materials based from the Boles Fire. These comments are based a review of the California Environmental Protection Agency's "Guidance for Conducting Emergency Debris, Waste and Hazardous Material Removal Actions Pursuant to a State or Local Emergency Proclamation" dated October 7, 2011.

Per the CalEPA guidance document and CARB comments* the asbestos assessment and abatement can divided into two classifications. *Note: This information only applies to the Asbestos NESHAP requirements for this incident in the Non-Delegated Districts. Other regulations, including those affecting disposal sites, health and safety requirements, and Cal-OSHA still apply.*

1. **Totally Destroyed Structures:** If the burn ash or building material on the ground is from structures completely destroyed by natural forces (as opposed to structures demolished in whole or in part by human activity), this material is not subject to the Asbestos NESHAP as it relates to the demolition and renovation, transport and disposal requirements. For such destroyed structures, you may immediately begin removal and proper disposal of the resulting debris.

2. **Partially Destroyed Structures:** The demolition and disposal of "partially damaged" or "standing-but-unsafe-to-enter" structures are subject to Asbestos NESHAP requirements. Prior to demolition and removal, the resulting debris will need to be inspected by a Certified Asbestos Consultant (CAC) to determine if the debris it is considered regulated asbestos containing material, and if so, the asbestos containing wastes must be handled and disposed of accordingly. Notification of the demolition of those structures is required, and can be done on a structure-by-structure basis or can be done on a contractor-by-contractor basis (with the contractor appending a listing of the addresses being removed by that contractor). Because the event is a declared state of emergency, the 10-working-day waiting requirement is not applicable; please have the contractors indicate on the notification that the project is in the fire area. Work a can begin immediately upon characterization of the waste by the CAC. Notification can be fax, emailed, or snail-mailed to ARB, and must be received within no later than the first working day after work begins. All regulated asbestos containing material should be handled in accordance with the Asbestos NESHAP and should be disposed of at a landfill authorized to accept asbestos containing waste.

To be protective of public health and the surrounding community, CalRecycle has elected to perform a site assessment and evaluate each site for structural asbestos containing materials (ACM) before removal.

3 Debris Removal Operations Management

3.1 Incident Command System

This debris removal operation will utilize the Incident Command System (ICS) management structure and system. ICS is the model management tool used in disaster response scenarios for the command, control and coordination of all agencies and/or private companies working on an incident. ICS will be used as a management tool for all agencies and private contractors as they work toward the common goal of removing the debris and protecting the environment and public health.

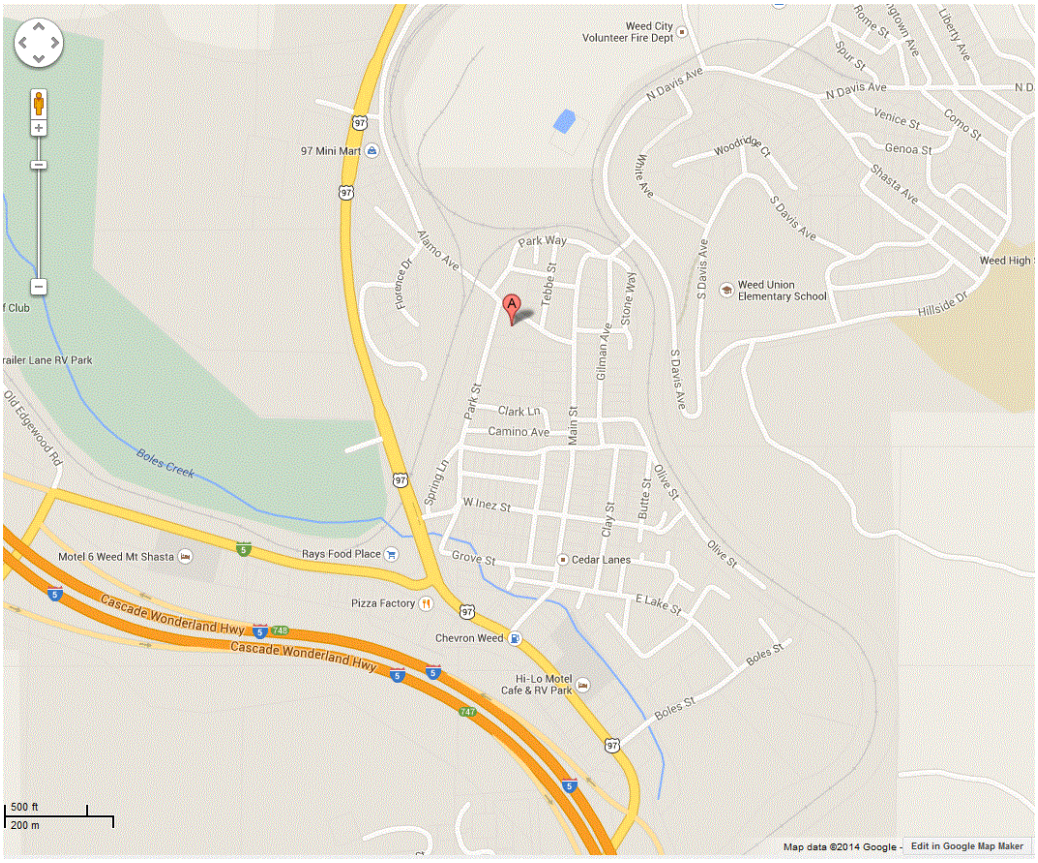
Employing the ICS structure, the City of Weed will serve as Incident Commander. CalRecycle will dedicate an Operations Team to manage the operations and provide the necessary contractors, resources and management including an Operations Chief, Planning Chief, Logistics Chief, Financial Chief, and supporting Branch and Division Supervisors. The Operations Team Chiefs and Supervisors will have a phone or radio available at all times while on-site.

3.2 Debris Removal Operations Center

CONTRACTORS will be responsible for establishing and maintaining a debris removal operations center (DROC) for the project for managing day-to-day activities and storing field supplies. The CONTRACTORS will supply the necessary office supplies, fax machines, copiers, drinking water, electrolyte fluids, electricity, and other services to maintain the DROC.

The DROC is located at 150 Alamo Avenue, Weed, California as shown in Figure 5.

Figure 5. Debris Removal Operation Center Location, 150 Alamo Avenue, Weed, CA



4 Health and Safety

CONTRACTORS shall, at all times, operate equipment and perform labor in a safe manner to ensure the safety of its employees and the public. CONTRACTORS must pay particular attention to operations around local roads and take the necessary precautions. CONTRACTORS must note the number of power lines crossing the site, dead trees, chimneys, and all underground utilities.

CONTRACTORS shall employ a third party certified industrial hygienist to develop a *Site Specific Health and Safety Plan* for the Weed debris removal project. The industrial hygienist consultant will also serve as the Safety Officer for entire project and provide field oversight to ensure compliance with the health and safety plan. The industrial hygienist will also prepare an air monitoring plan and a final report summarizing the air monitoring data.

CONTRACTORS will designate eating areas and supply hand and eye washing stations and mobile sanitary facilities for each project site.

4.1 Worker Safety

Given that ash may contain elevated levels of heavy metals and/or asbestos, an exclusion zone will be set up around each home site during removal. All personnel entering and leaving this area will be required to wear level “C” protective attire or level “D” with N95 masks and coverall depending on the work zone and hazard level. **All workers should be aware that asbestos is a human carcinogen with no known risk-free levels of exposure.**

4.2 Industrial and Community Air Monitoring

Monitoring of the air in the community and work sites for asbestos, heavy metals, and dust will be monitored by a certified industrial hygienist for the duration of the project until such time the industrial hygienist determines that air monitoring may cease. CONTRACTOR shall employ a third party certified industrial hygienist to perform this work.

The methods for the air monitoring are as follows:

- Fugitive Dust – United States Environmental Protection Agency (USEPA) approved equivalent methods for particulate matter 2.5 microns or greater in diameter (PM-2.5) and/or particulate matter 10 microns or greater in diameter (PM-10) monitoring;
- Heavy Metals - National Institute for Occupational Safety and Health (NIOSH) Method 7300, Metal Scan; and
- Asbestos - NIOSH Method 7402, High Volume.

4.3 Community Health and Safety

A *Community Health and Safety Plan* will be prepared as an additional planning document for the Weed debris removal project. All site activities will be conducted consistent with this community plan and with consideration to the surrounding community and all citizens affected by the Boles Fire Incident. The City of Weed and the County of Siskiyou will provide additional support and communication to the affected community.

4.4 Permits

Table 3 lists the permits anticipated for the project.

Table 3. Summary of Permit Requirements

Permit and Agency	Responsibility	Contact/Comments
Site Authorization Right-of-Entry	City of Weed	Executed forms are required by owners before work can begin on their property.
California Environmental Quality Act (CEQA)	Not Applicable	Projects undertaken, carried out, or approved by a public agency to maintain, repair, restore, demolish or replace property or facilities damaged or destroyed as a result of a disaster are exempt from CEQA. Public Resources Code, §§ 21080(b)(3), 21172; see also, 14 CCR 15269(a).
Section 1602 Streambed Alteration, Department of Fish and Wildlife (DFW)	CalRecycle/DFW	Except for removal of burned trees, the project does not include work in the streambed. CalRecycle will consult with the DFW as to the applicability of a 1602.
Grading	Not Applicable	Soil import will be kept to a maximum of 50 cubic yards per home.
Demolition Permit	CONTRACTORS	City of Weed issued a blanket permit to demolish all structures destroyed by the fire.
Traffic Control	CONTRACTORS	CONTRACTORS will supply necessary signage as appropriate. Additional control devices may be necessary based on site conditions
Asbestos Notification	CONTRACTORS	CONTRACTORS will make the appropriate notification
Water Permit	CONTRACTORS	CONTRACTORS shall obtain the necessary water permit to be used for dust suppression
Tree Removal Permit	CONTRACTORS	Not applicable. Trees will be recycled on site and not sold.
Hazardous Waste	CONTRACTORS	CONTRACTORS shall use the appropriate hauler and disposal facility

5 Proposed Cleanup

5.1 Scope of Work

Major items of work anticipated in this project include, but are not limited to:

- Establishing a DROC, necessary site facilities and adequate safety and sanitation facilities;
- Coordination of all contractor resources;
- Installation of all necessary project signs including site specific signs indicating removal progress;
- Removal and disposal of debris, solid waste, and demolition debris to appropriate facilities;
- Segregation of recyclable debris and delivery to recycling facilities;
- Removal of trees that pose a safety hazard;
- Site contouring and erosion control;
- Establishing and ensuring traffic control plans; and
- Cost tracking.

Additionally, consultants will be hired to provide services including but not limited to the following:

- Prepare a site specific health and safety plan;
- Prepare a community safety plan;
- Prepare a native soils and asbestos background report;
- Perform field documentation for each home site;
- Perform an asbestos survey by a certified asbestos consultant of each home site;
- Perform air monitoring;
- Perform an assessment of hazardous trees;
- Perform confirmation sampling for each home site; and
- Prepare a final report for the project and for each home site.

5.2 Work Plan

The specific tasks for the project include the following tasks which are further described in Section 6

- Inspect all structures at each site and evaluate hazards.
- Coordinate with local agencies and resources to determine what materials and tasks are required.
- Provide and install the site project signs, and address signs if needed.
- Prepare for emergency erosion control to prevent the issues with runoff associated with significant rain events.
- Perform the necessary site documentation and an asbestos survey.
- Remove the ash and debris, metals, concrete and wood waste from the site. Recycle all recyclable materials, transport and dispose of all materials properly.
- Segregate hazardous wastes discovered during removal. Remove hazardous wastes except for household hazardous wastes. Household hazardous waste will be segregated and stored on-site by CalRecycle for pickup by the City of Weed.
- After all the appropriate debris is removed from the site, remove 3 to 6 inches of soil from the impacted area.
- Confirm through sampling that residual contamination has been removed.

- Assess trees in the projects area, and identify and remove all trees that require removal for the protection of public health and safety and the environment.
- After all debris is removed complete the erosion control measures.
- Confirm final approval of each site and obtain County approval of site readiness for building permit issuance.

5.3 Schedule

Prior to beginning work, CONTRACTORS shall submit a proposed schedule of operation. All work shall be performed between the hours of 7:00 A.M. to 6:00 P.M., Monday through Saturday, unless authorized by the Operations Chief and the City of Weed. A daily briefing will commence at the staging area at 7:00 AM every day of operation.

Scheduling and coordination of construction activity shall be the sole responsibility of CONTRACTORS within the following limitations:

- CalRecycle and the City of Weed will determine which zone the CONTRACTORS will begin work. Two branches (Branch 1 and Branch 2) have been identified as shown in Figures 3, 3A and 3B.
- CONTRACTORS shall employ the sequence of removal activity designed by the Operations Chief and described within this document.
- CONTRACTORS will verify appropriate rights to enter have been obtained and all necessary testing and documentation have been completed prior to implementing any phase of removal activity.

5.4 Debris Types and Disposal Facilities

CONTRACTORS will work with CalRecycle and local agencies to identify disposal facilities capable of handling the waste generated from the debris removal activities. Table 4 provides disposal information to assist the CONTRACTOR in the removal of the debris from the Boles Fire Incident. CONTRACTOR is responsible for verifying that all disposal and recycling sites utilized in the completion of this project have all required permits and licenses.

Table 4. Disposal Matrix for Materials

Material	Disposal Contact or Facility
Ash and Debris	This incident requires disposal as a hazardous "Asbestos Containing Waste". Operation Chief is responsible for identifying the appropriate disposal facility. This material will be disposed at the Anderson Landfill.
Soil and Debris	Operations Chief will be responsible for identifying the appropriate facility. This material will be disposed of as a non-hazardous solid waste at the Anderson Landfill.
Demolition Debris (Damaged Homes)	CONTRACTORS will be responsible for identifying the appropriate facility.
Asbestos	CONTRACTORS will be responsible for identifying the appropriate facility. This material will be disposed of at the Anderson Landfill as possible "Asbestos Containing Waste."
Trees and Vegetation	CONTRACTORS will be responsible for identifying the appropriate facility.
Metal Debris	Metal will be recycled by Black Butte Towing.
Metal Discards (Appliances)	Freon Extraction is REQUIRED for refrigerators. Check with identified metal recyclers to determine if they are in compliance with the Metallic Discard Act. Note: Furnaces shall be checked for asbestos before disposal.
Vehicles and Trailers	Vehicles and/or trailers that did not sustain damage or vehicles and/or trailers that sustained minor damage will be left on the property. These vehicles and/or trailer may be moved by the CONTRACTORS to ensure worker safety and as needed to complete the debris removal.
Concrete	Concrete will be recycled by Sousa Ready Mix.
Tires	CONTRACTORS will be responsible for identifying the appropriate disposal or recycling facility.
Other Hazardous Waste	CONTRACTOR will be responsible for identifying the appropriate facility.
Household Hazardous Waste (HHW)	**Unlikely.** The City of Weed has performed a HHW assessment of the impacted area and removed identified HHW. If additional HHW is discovered, the HHW will be segregated by the CalRecycle and/or the CONTRACTORS to a temporary on-site storage. As necessary the City of Weed will collect and transport HHW to the County facility at no charge to CalRecycle and or CONTRACTORS.

Human Remains	CalRecycle will coordinate with the City and County to locate any human remains. If human remains are located the work will stop and CalRecycle will contact the County. Due care of the remains will be taken.
Dead Animals	If dead animals are discovered, they will be disposed of in accordance with local restrictions with the ash and debris, unless directed by the homeowner.
UXO (Unexploded Ordinance)	**Unlikely.** With the high temperatures occurring during the Boles Incident, the likelihood of discovering any UXO is remote. If UXO is discovered the CONTRACTORS shall notify CalRecycle so proper disposal can occur by the County of Siskiyou Sheriff Department.
Radioactive Debris	**Unlikely.** All impacted lots will be screened for radiation before removal. If radioactive debris is encountered, the material will be removed and properly disposed of by CalRecycle and its CONTRACTORS.
Medical Waste	**Unlikely.** If medical wastes are discovered, they will be properly bagged and transported to the appropriate facility by CalRecycle and its CONTRACTORS. Small quantities of sharps (e.g., needles and illegal drug items) will be removed and disposed of by CalRecycle and its CONTRACTORS consistent with local and state programs.

5.5 Special Provisions

5.5.1 Appliance and Vehicle Recycling

CONTRACTORS or its subcontractor shall provide for removal and disposal of material that may require special handling, such as various automobile or appliance components.

Materials that must be removed from appliances and vehicles prior to crushing, baling or shredding for recycling include, but are not limited to:

- Chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), and hydrochloroflourocarbons (HCFCs) used as refrigerants.
- Polychlorinated biphenyls (PCBs) known to be contained within motor capacitors and fluorescent light ballasts.
- Used oils as defined in Article 13 of Chapter 6.5 of the Health and Safety Code (includes lubricating fluids, compressor oils, and transmission oils).
- Sodium azide canisters in unspent automobile air bags.
- Antifreeze in coolant systems.
- Mercury that may be found in thermometers, thermostats, barometers, electrical switches, and batteries.

The CONTRACTORS shall maintain accurate records detailing the removal and disposal operations involving all such materials, and shall provide the Operations Chief with all manifests

and/or documentation pertaining to the work. Vehicles and appliances that were completely consumed by the fire will probably not contain any of the above items. The vehicles and appliances will be treated as metal debris and removed accordingly.

5.5.2 Household Hazardous Waste (HHW) Handling

To identify HHW or other hazards in the field the following color code and action has been established. If a questionable item is discovered that cannot be immediately identified for removal from the waste stream then the hazardous item will be marked with bright orange spray paint to indicate a possible hazard. Once the item has been checked by a qualified individual and deemed not a hazard (e.g., propane tank without a valve), then the item will be marked with bright green spray paint with the words “O.K.” or two stripes.

5.5.3 Old Hand-dug Groundwater Wells

Old hand-dug groundwater wells may be encountered throughout the project work area when removing debris from the home sites. These structures can vary in diameter and depth. Instructions and specifications for abandoning a hand-dug well is provided in [Appendix C.]

5.6 Hazard Marking

After wildfires structural debris can blend in with potentially hazardous substances. In an attempt to visually communicate the hazards in the field the following guide will be used to indicate if a hazard is or is not visual present. Each task force leader will determine if any member has color perception issues.

Debris or Potential Hazard	Spray Paint Color
HHW, Battery, Tank, Cylinder	Bright Orange
Possible Asbestos Containing Material	Bright Pink
Material Safe for Normal Disposal	Bright Green

5.7 Project Signs

5.6.1 Address Signs

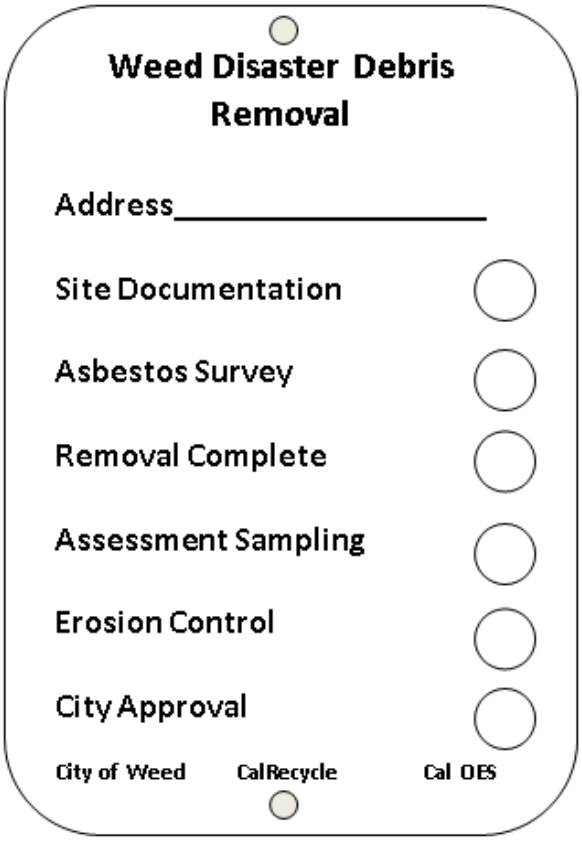
Approximately 150 reflective aluminum address signs will also be required. The sign dimension should be 6 inches in width and 24 inches in height. The edges shall be round and free of sharp edges. The background shall be a reflective green and all the text shall be a reflective white. The City of Weed will reestablish all address. Each sign shall be mounted on a 6 foot pre-drill, u-channel steel post. The numbering for the address shall be at minimum of 4 inches in height.

Address sign example.

5.6.2 Project Sign and Labels

A total of 154 white signs will also be required. These signs will be used for the coordination of the project with the various agencies. During the project, each phase will be signed off on the sign to indicate progress. Each sign will be 12 inches in width and 18 inches in height. The sign shall be made of metal and edges shall be round and free of sharp edges. The background shall be a white reflective coating and all the text shall be black. A sample sign is provided below. The CONTRACTORS shall also supply the necessary project supplies to produce the labels. The Operations Chief will provide the design for each label.

Examples of Past Project Signs and Labels



5.8 Background Assessments

The CONTRACTORS shall be responsible for assessing background soil conditions of the impacted area. The CONTRACTORS will sample soils to establish the naturally occurring metal concentrations around the impacted area. All samples shall be analyzed for Title 22 metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc) by EPA Method 6010 and mercury by EPA Method 7471A by a California-certified laboratory. Results from these samples will be used to establish cleanup goals as described in Section 6.6.

6 Sequence of Debris Removal Operation

The following summarizes the tasks in order that the CONTRACTORS, or an approved subcontractor, will undertake during structural debris removal activities. Prior to any activities being conducted on an individual home site, a properly executed ROE will be obtained by the County. Included in the ROE, each homeowner will be able to identify specific requests for the removal of materials and potential location of items that might be recovered. (**Note: No work by CalRecycle's Contractors or its subcontractor(s), including inspection of structures and/or evaluation of hazards, will occur on private property until the property owner signs the Right-of Entry, no exceptions**).

6.1 Site Assessment

To prepare each property for cleanup, an approved third party environmental consultant will perform a site documentation on all the impacted lots. Site documentation will include photographic records as described in 4.6.3.1 and foundation verification as described in 4.6.3.2 and additional data as determined necessary by the Operations Chief.

6.1.1 Site Photo Logs

The Consultant will take a minimum of four photographs from all sides of the impacted structure. Additional photos should also be collected of other structures and vehicle if not shown in the original photos. The Consultant will collect a minimum of two other photos showing the location of the confirmation samples.

6.1.2 Radiological Monitoring

While unlikely to be an issue, a third party consultant shall perform a radiological survey around the impacted structures. The survey equipment should be designed for general radiological surveying such as a Ludlum 2241 or equivalent. CalRecycle will provide the calibrated radiological equipment to the consultant for the duration of the project.

The action level for this project is set at two times background. Should a level of 2x background be detected, the surveyor will isolate (i.e., cordon off) the area and notify the Operations Chief and/or City of Weed. The elevated reading(s) will be traced until the source can be determined to be due natural sources such as brick or geological formations. Should the reading not be from natural sources the Operations Chief will determine the location and rate and develop an action plan to secure the source as long as the reading does exceeds 1mR/hr at one foot.

6.1.3 Foundation Verification

The Consultant will contact the City of Weed Building Department and coordinate a foundation investigation. The purpose of the investigation is to determine the previous square footage of the home. The Consultant will be responsible for providing the measurements of the foundation, piers, sheds, or other structures to the County. The Consultant will measure and record the dimensions of the burned structure footprint at each property, measure and record the dimensions of the ash area footprint at each property, and monitor the ash at each property for radioactivity with field monitoring equipment provided by CalRecycle.

6.2 Asbestos Survey

To be protective of public health and the surrounding community, CalRecycle has elected to perform a site assessment and evaluate each site for structural asbestos containing materials (ACM) before removal whether or not the structure is totally destroyed or partially destroyed.

Prior to the removal of ash and debris a California Division of Occupational Safety and Health CAC will assess and sample all residential and other affected areas of the site, to identify and remove gross asbestos. Any ACM that is not found on the ground due to natural forces may be subject to the NESHAP requirement. Once the removal of easily identifiable gross asbestos has been completed, hazardous material and HHW may be identified, segregated, classified, and properly removed from the site.

A certified asbestos consultant will perform a site assessment and evaluate each site for structural asbestos containing materials (ACM).

6.3 Asbestos Containing Materials Best Management Practices

The following BMPs should be used when undertaking removal actions pursuant to a declared State of Emergency. These BMPs should be undertaken to address the removal of hazardous materials, household hazardous waste (HHW), debris, asbestos containing materials (ACM's), and air monitoring and sampling from the disaster or incident site. Use of BMPs will also ensure the proper management and removal of hazardous materials, debris, burn ash, and other asbestos containing materials in a manner that ensures protection of public health and the environment, as well as, ensuring the health and safety of on-site personnel.

If the burn ash or building material on the ground is from structures completely destroyed by natural forces (as opposed to structures demolished in whole or in part by human activity), this material is not subject to the Asbestos NESHAP requirements as it relates to the demolition and renovation, transport and disposal requirements. If the building material and debris is not completely destroyed and requires further demolition, the debris will be subject to the Asbestos NEHAP requirements.

At a minimum, the CONTRACTORS shall follow the following BMPs for undertaking debris removal activities:

- A California DOSH Certified Asbestos Consultant (CAC) will be utilized to assess the area or each residential or commercial property for easily identifiable and removable pieces of ACM. After assessing each property or area, the CAC will consult with a

licensed asbestos removal contractor to identify the location and area of ACM to be removed from partially destroyed structures.

- A Cal/OSHA registered Asbestos Removal Contractor will be responsible for overseeing the safe removal of ACM identified on-site by the CAC for partially destroyed structures.

- All on-site personnel working to remove ACM must have received the necessary health and safety training for conducting asbestos removal activities pursuant to OSHA 1910.100, and CCR Title 8, Section 5192, and will be required to wear Level C PPE when working in the exclusion zone.

- All on-site cleanup personnel must be 40-hour HAZWOPER trained Under 29 CFR 1910.120, and CCR Title 8, Section 5192.

- The affected disaster or incident area (commercial, residential, or rural properties) will be screened by a CAC to identify all gross ACM that can be easily removed from the ground or structure prior to debris removal activities.

- Request an asbestos consultation from the state or local AQMD for any structure that is not completely destroyed or for any structure with vermiculite insulation, for large "facility" components or material that will be broken up upon movement, or for other asbestos issues as identified by the CAC. Note: Current field definition of destroyed means the structure does not have a roof or any load bearing walls.

- During asbestos screening process, it is recommended that bulk samples be collected from 10 to 20 percent of the representative structures that have not been destroyed to determine the presence of ACM above NESHAP regulations, and to ensure residual building.

- All gross ACM that can be safely and easily removed from the site will be adequately wetted prior to being bagged or burrito wrapped to meet the NESHAP leak-tight requirement for removal. The easily identifiable gross ACM can be double-bagged and appropriately labeled as ACM. (At a minimum the plastic bags must be of at least 6-mil thickness, and the contents must remain wet.)

- If bulk loading of ACM is utilized, the bin or container used for transport (e.g. end-dump trailer or roll-off box) shall be double-lined with 10-mil ploy in such a way that once loaded both layers can be sealed up independently.

- Conduct on-site and off-site air monitoring and sampling for asbestos and heavy metals during all ACM and debris removal operations to demonstrate the effectiveness of engineering controls to protect cleanup personnel and the surrounding community.

- Use engineering controls to maintain dust and fibers during removal activities. A water fog must be used during debris handling, bulking/bagging, and waste loading operations. It is recommended that cleanup contractors will use fire grade firefighting nozzles with shut off valves for dust control. The fire nozzle shall have sufficient water pressure to generate a high mist fog stream. The fire nozzle should have an adjustable flow rate, preferably 20 to 60 gallons per minute, and constructed of hard coated aluminum with brass and stainless steel internal components. **Plastic nozzles should not be used.**

While the costs of metal firefighting nozzles are significantly more than plastic nozzles, metal nozzles are only able to generate a sufficient fog to control dust.

- All burn ash and debris must be sufficiently wetted 48 to 72 hours in advance of initiating removal of the material. The water shall be applied in a manner so not to generate significant runoff. Engineering controls for storm water discharges must be in place prior to dust control operations.

- All waste material that is not loaded out at the end of each workday should be stockpiled, sufficiently wetted, and/or covered to prevent the offsite migration of contaminants.

- All non-hazardous waste haulers who observe loading operations outside of the vehicle cab, and/or covering (e.g. tarping) the trailer or container must wear N95 masks and coveralls.

- All approved landfill operators that may come in contact with the waste during off-loading operations should follow their facilities protocols for wearing PPE and respiratory protection.

- All ACM and debris removed from the property, site or area must be manifested and transported for disposal to a permitted treatment, storage, and disposal facility in good standing with local, state, and federal agencies.

- Cal/OSHA may require procedures for the receiving landfill facility to establish an appropriate site safety plan for the protection of the facility employees to potential ACM in the waste stream.

6.4 Debris removal

Debris removal will be conducted on each site following a specific, prescribed process and order as follows:

- Identify and remove gross asbestos material;

- Segregate and remove all metals;

- Remove ash and commingled debris from the site. This material will be treated as a hazardous asbestos containing waste. Dust emissions during all phases of the removal will be controlled via a water spray from a fire fighting grade nozzle;

- Drop chimneys down to ground level and remove chimneys and foundation. Remove all chimneys and foundations. CalRecycle's engineer has determined that all chimneys pose a health and safety risk to the removal team. All chimneys will be taken down with proper dust control. If feasible, the chimney and concrete foundation or slab will be recycled. The slab or foundation may have to be washed down to ensure the concrete is not contaminated;

- Remove additional ash and commingled debris as needed; and

- Remove 2 to 6 inches of soil from debris site.

6.5 Confirmation Sampling

The CONTRACTORS will be responsible for collecting at least two confirmation soil samples from each property unless the structure is a shed or other impacted area. Should the impacted area be greater than 2,000 sq. ft. then one additional sample per 1,000 sq. ft. of contamination (e.g., 3 per 3,000 sq. ft., 4 per 4,000 sq. ft., etc.) will be collected. The samples will be submitted to a California-certified laboratory and analyzed for Title 22 metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc) by EPA Method 6010 and mercury by EPA Method 7471A.

The CONTRACTORS consultant ARCADIS has established the cleanup goals for the project and has prepared the report. ARCADIS will evaluate the analytical results by comparing the soil sampling results to the pre-determined background concentrations and cleanup goals, assist in determining whether additional excavation is necessary at each property based on the confirmation soil sampling results, and coordinate with CalRecycle and Contractor, if appropriate, to conduct additional removal activities. ARCADIS will collect additional confirmation soil samples at the direction of the Operations Chief.

6.6 Cleanup Goals

The cleanup goals for this project are based on screening levels established by USEPA, DTSC Office of Human Health and Ecological Risk Human Health Risk Assessment, and Office of Environmental Health Hazard Assessment for residential uses, and local background concentrations of metals in soils. The cleanup goals were developed by first determining the local background concentration for metals in soil using USEPA Pro UCL 5.0 software as twice the 95th percentile threshold. The background values were then compared to the screening levels established by the various agencies identified above. For each individual metal, if the background concentration is below the screening level, then the cleanup goal is the screening level. If the background concentration exceeds the screening level, then the cleanup goal is valued at two times the background concentration.

Confirmation sampling results will be compared to the project established cleanup goals to assess the effectiveness of the ash and debris removal. A *Weed Incident Structural Debris Removal, Unified Command Approval Form* (Appendix D) will be provided for each parcel whose confirmation sampling results are below the cleanup goals. If any of the confirmation sampling results exceeds the cleanup goals, then the parcel will be further excavated at the direction of the Operations Chief. The parcel will be sampled again after the excavation is complete. Table 5 provides the cleanup goals for this project.

Table 5. Cleanup Goals for Metals in Soil (concentrations in milligrams per kilogram (mg/kg)

Metals	2 X the ProUCL 5.0 Calculated Background Concentration (distribution based on 95th percentile)[1] (mg/kg)	Screening Level for Residential Use[2] (mg/kg)	Cleanup Goal[3] (mg/kg)
Beryllium	ND	15[b]	15
Vanadium	91	390[a]	390
Chromium (III)	50	120,000[a]	120,000
Cobalt	19	23[a]	23
Nickel	43	1,500[a]	1,500
Copper	41	3,100[a]	3,100
Zinc	114	23,000[a]	23,000
Arsenic	4.0	0.67[a]	4.0
Selenium	ND	390[a]	390
Molybdenum	ND	390[a]	390
Silver	ND	390[a]	390
Cadmium	ND	4.6[b]	4.6
Antimony	6.0	31[a]	31
Barium	147	15,000[a]	15,000
Mercury	ND	9.4[a]	9.4
Thallium	ND	0.78[a]	ND*
Lead	104	80[c]	104

Notes:

[1]ProUCL 5.0: Statistical software used to calculate background threshold values (USEPA. 2013)

[2] Source of Screening Levels:

(a) USEPA Regional Screening Levels, RSL Tables May 2014.

(b) DTSC Office of Human and Ecological Risk Human Health Risk Assessment Note 3. July 14, 2014.

(c) Revised California Human Health Screening Levels for Lead. September 2009.

[3] Cleanup goal selected using the higher value of either the background concentration (2 times the 95% UCL) or the Screening Level.

ND = not detected above laboratory reporting limits (non-elevated)

ND* = cleanup goal listed for Thallium is non-detect with a laboratory reporting limit equal to 1.0 mg/kg.

6.7 Hazard Tree Identification and Removal

A certified arborist will perform an assessment of all trees in the impacted area and identify those trees which pose a hazard and must be removed. The objectives of the tree assessment and inventory will include:

- Identification of all trees damaged by the incident,
- Assessment of the damage and survivability to each tree,
- Assessment of each tree against established indicators of hazardous tree criterion, and
- Determination which trees should be removed during recovery efforts conducted by CalRecycle.

6.8 Tree Removal

Following identification and marking of hazardous trees and only after removal activities are complete and confirmation sampling has been taken, the CONTRACTOR, or an approved subcontractor, will remove trees employing all engineering controls to mitigate dust generation and ensure site safety protocols. All wastes generated from the removal of trees will be hauled to an appropriate waste or recycling facility.

6.9 Debris and Tree Removal in Public Areas

The public areas (playground and park) adjacent to home sites are under the jurisdiction of the City of Weed. The City may requested debris and tree removal within these areas be included in the project. The City has retained a professional arborist to evaluate the area and identify the scope of tree removal on City property. If approved, the CONTRACTOR will conduct debris removal consistent with the process for private home sites, with the exclusion of erosion control. All erosion control on City property, including design, monitoring, and maintenance, will be conducted by the City of Weed.

6.10 Erosion Control

One of the most prevalent water pollution threats from burn sites is the discharge of ash and other burn related debris into storm drains or natural receiving waters. Sites where debris and ash have been removed are often graded and have soils prepared similar to those of construction projects. Debris removal and site clearing activities increase the exposure of soils to wind, rain, and concentrated flows that cause erosion and adversely impact storm water quality with high levels of total suspended solids and many other pollutants, which subsequently impacts surface waters.

The main objective of erosion control is to stabilize disturbed soil and reduce sediment transport caused by erosion from entering a storm drain system or receiving water body during debris removal after a disaster. BMPs for storm water controls may include the use of fiber rolls, silt fences, erosion control blankets, hydroseeding, soil binders, and other devices to reduce sediments. Effort should be made to preserve existing vegetation, if practicable. Once the removal has been completed, operation and maintenance of storm water control measures must be maintained by the property owner or the local government.

Erosion control is critical for the success of this project. Erosion Control shall be installed after each lot has met the site specific cleanup goals. Prior to the removal of the structure, some erosion control will be necessary to prevent the migration of contaminates off site. Work may

consist of installing silt fences, fiber rolls, erosion control blankets and other erosion control BMPs necessary for improving site stability.

After all debris is removed, the CONTRACTORS will complete the erosion control measures. The erosion control devices shall be installed using the erosion control guidelines established by this Operations Plan and as directed by the Operations Chief, the City of Weed Public Works Department, or other appropriate agency.

6.11 Erosion Control Methods

The methods for erosion control were based on the slope of each lot, proximity and contribution to the City's municipal stormwater system, and the proximity of the stream environment zone. Each residential parcel will receive one of the following BMP treatments:

- Level 1: Mulch or Hydroseeding. Mulch shall be between 4 to 6 inches in depth and cover over 90% of the lot impacted by the structural debris. Specifications for hydroseeding are provided in Appendix E.

- Level 2: Mulch or Hydroseeding and Fiber Log and/or Silt Fence. Fiber Logs shall be a minimum of 8 to 12" in diameter and shall be staked and keyed in. Silt Fences shall be wire-backed in snow zones and used in areas on slopes greater than 7%.

- Level 3: Mulch or Hydroseeding, Fiber Log and/or Silt Fence and Erosion Control Blanket.

- Level 4: Site Specific Treatment – consult with local agencies.

Additional erosion control methods may be developed after consultation with local agencies.

6.12 Erosion Control Materials and Specifications

Materials used for erosion control shall be placed in accordance with this Operations Plan or as directed by the Operations Chief, the City of Weed Public Works Department, or other appropriate agency.

The following materials have been identified for the project:
- Hydroseed;
- Fiber bundles;
- Erosion Control Blankets;
- Silt Fence;
- TBA cubic yards of class II road base or equivalent; and
- TBA cubic yards of rock and/or cobble for erosion control

Quantities and location of the materials will be determined in the field by the Operations Chief.

Hydroseeding – Hydroseeding (or hydraulic mulch seeding, hydro-mulching, hydroseeding) is a planting process that uses a slurry of seed and mulch. The slurry is transported in a tank, either truck or trailer-mounted and sprayed on prepared ground. Material specifications are provided in Appendix E.

Fiber Roll Barriers – Fiber roll barriers (also called sediment logs or straw wattles) are commercially manufactured and usually consist of milled wood or other natural fibers sewn into a circular weave fabric. Fiber rolls are good perimeter protection, designed to slow stormwater runoff and trap small amounts of sediment. Fiber rolls shall be 8” to 12” in diameter.

Erosion Control Blanket – Erosion control blanket is a manufactured blanket or mat that is designed to hold soil and seed in place on slopes. It consists of organic, biodegradable materials such as wood fiber, coconut fiber, or a combination of these materials. It is commercially manufactured and delivered to the site in rolls.

Erosion control blankets shall be 100% organic biodegradable (including parent material, stitching, and netting). The minimum thickness shall be 3/8” (9mm). The netting shall be stitched to prevent separation of the net from the parent material. The netting shall be capable of withstanding moderate foot traffic without tearing or puncturing. Neither the netting, nor the installation, shall pose a safety risk to people walking on/crossing over it. Neither shall the blanket or netting pose a hazard to wildlife such as birds, reptiles and amphibians.

Appropriate products include, but may not be limited to:

- Curlex I Fibernet (American Excelsior)
- Curlex II Fibernet (American Excelsior)
- AEC Premier Straw Fibernet (American Excelsior)
- S 75 BD (North American Green)
- S 150 BN (North American Green)
- SC 150 BN (North American Green)
- C125 BN (North American Green)
- Excel S-2 All Natural (Western Excelsior)
- Excel SS-2 All Natural (Western Excelsior)
- Excel CS-3 All Natural (Western Excelsior)
- Excel CC-4 All Natural (Western Excelsior)

Silt Fence – Silt fence consists of a permeable filter fabric that is keyed into the ground and staked beyond the toe of a slope. The fabric pools runoff, causing entrained sediment to settle out behind the fence while water slowly filters through the fabric.

Anchors – Anchors are devices that secure erosion control materials such as fiber roll barriers, erosion control blankets, and silt fence in place.

For erosion control blankets, anchors shall be completely biodegradable, environmentally safe, and shall have no potential for soil and/or water contamination. Steel wire pins or staples will not be approved. Petroleum based plastics or composites containing petroleum based plastics will not be approved. Materials deemed to present a hazard from splintering or spearing will not be approved. Wood stakes or stakes manufactured from wood byproducts may be approved.

Appropriate products include, but may not be limited to:

- E-Staple (American Excelsior)
- CF Bio Staple (CFM Corp)
- Green Stake (Green Stake)
- Bio-Stake (North American Green)
- Enviro-Stake (ODC Inc)

For silt fence, anchor posts shall be at least 36” long. Steel posts should weigh no less than one pound per linear foot.

For fiber roll barriers, stakes shall be wooden and at least 18” long.

Netting – Netting is a manufactured product intended to secure wood chips or pine needle mulch to the soil surface.

Netting shall be 100% organic biodegradable and may consist of paper, jute, or cotton netting. Netting material shall be approved by CalRecycle staff prior to installation.

Gravel Bags – Gravel bags are intended to slow stormwater flows and trap sediment on paved surfaces.

Gravel bags shall be filled with ¾” to 1½” *washed* rock. Bags filled with sand will not be approved.

6.13 Installation Standards

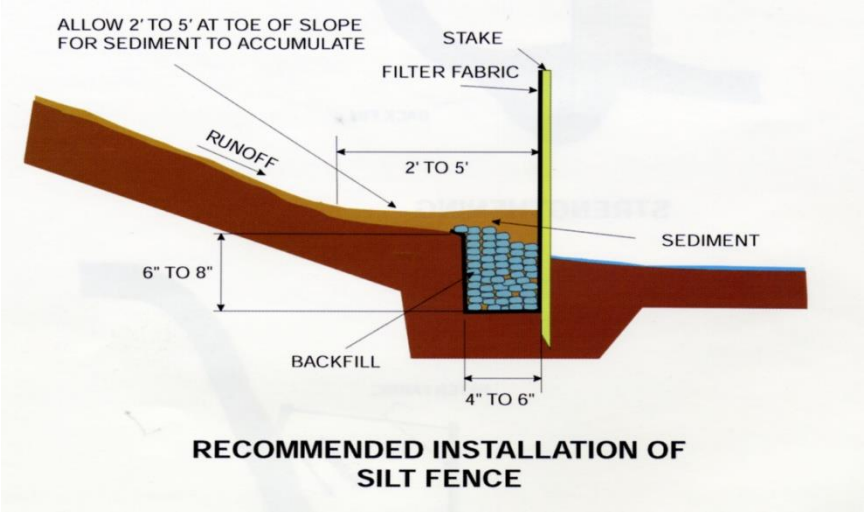
Erosion control BMPs installation shall consist of furnishing and applying erosion control materials. The work includes proper material handling, area preparation, proper application of the erosion control materials and structures, and stand maintenance for the areas shown on the Plans.

Area Management – Construction/demolition materials shall be stored to the maximum extent possible on paved surfaces. When this is not possible, construction/demolition materials shall be stored on areas where a future structure or other hard impervious surface will be constructed, such as a future building foundation or driveway.

Construction/demolition vehicles shall remain on paved surfaces to the maximum extent possible. When this is not possible, construction/demolition vehicles shall be used in areas where rebuild of impervious surfaces will occur, such as building foundation or driveway locations.

Silt Fence – Install silt fences as directed by the Operations Chief. Six inches of the fence shall be buried in a trench along the base of the fence. The posts shall be spaced a maximum of 10 feet apart and driven 18” into the soil or to refusal. Sediment shall be removed from the up-slope side of the fence when it reaches 1/3 the height of the fence. Refer to standard detail “Silt Fence” below.

Figure 6. Silt Fence Detail Drawing

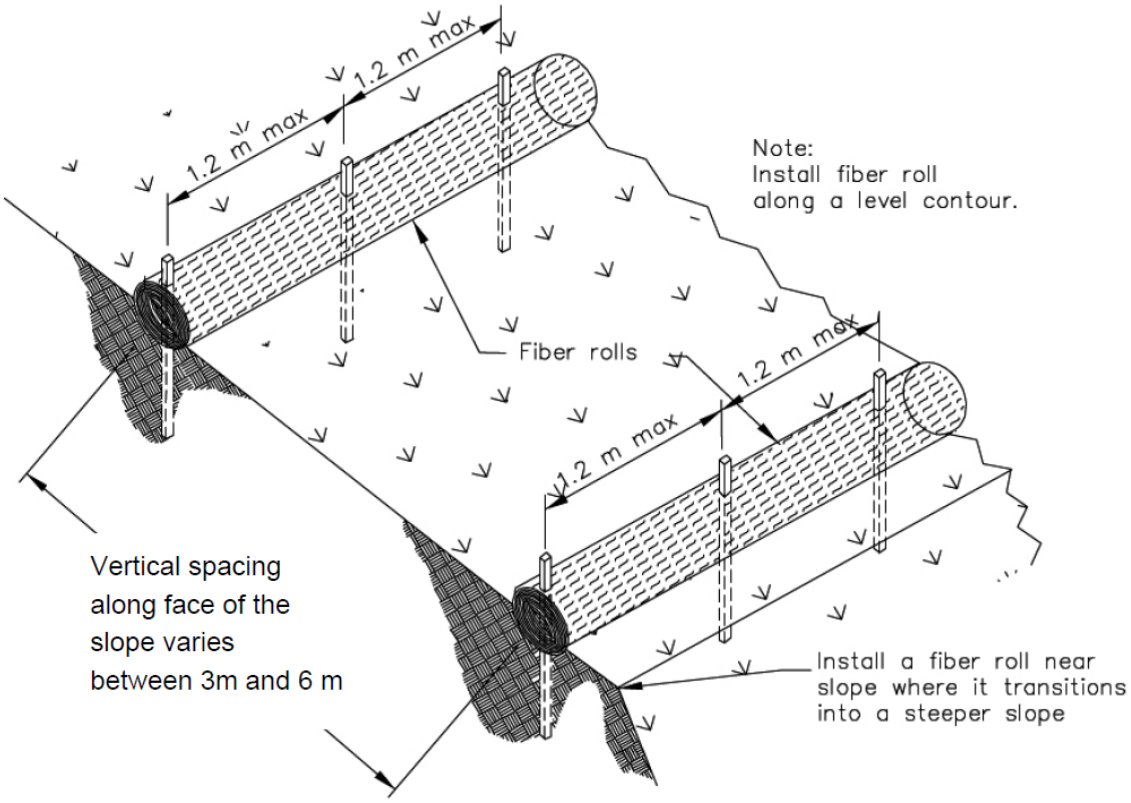


Erosion Control Blanket – Install erosion control blankets as directed by the Operations Chief. Starting at the top of the slope, anchor the blanket in a 6-inch trench, backfill, and securely tamp the backfilled soil. Unroll blanket downslope overlapping parallel and subsequent blankets a minimum of 4 inches. Secure blankets with anchors along the overlaps and place a minimum of 3 anchors per square yard. CONTRACTORS shall determine if more anchors are required and shall be responsible for installing the erosion control blanket so that it will stay in place.

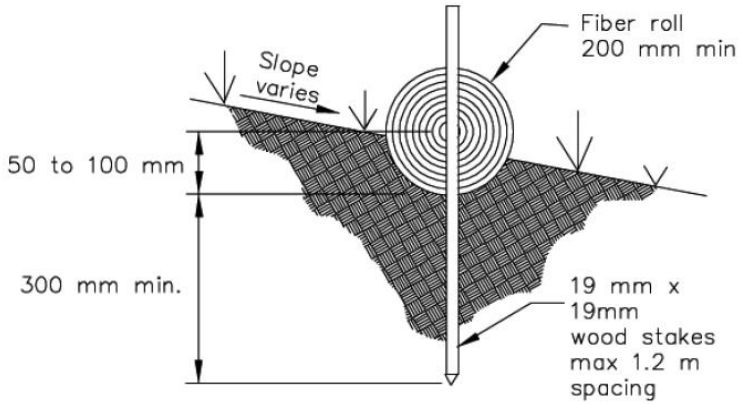
Fiber Roll Barriers – Install 8 or 12-inch fiber roll barriers as directed by Operations Chief. Place the fiber roll barrier in a 2 to 4-inch trench perpendicular to the flow path of storm water. Drive stakes in perpendicular to the ground. If required on steep slopes drive stakes on either side of the roll and bind together with bailing wire. Weighted rolls may be used as appropriate, especially on driveways. Refer to detail "Fiber Roll" below. Typical installation spacing for the fiber rolls will be as follows:

- 10 feet apart for slopes steeper than 2:1 (horizontal:vertical)
- 15 feet apart for slopes from 2:1 to 4:1 (horizontal:vertical)
- 20 feet apart for slopes from 4:1 to 10:1 (horizontal:vertical)
- 50 feet apart for slopes flatter than 10:1 (horizontal:vertical)

Figure 7. Fiber Roll Detail Drawings for Steep Slopes



TYPICAL FIBER ROLL INSTALLATION
N.T.S.



ENTRENCHMENT DETAIL
N.T.S.

Gravel Bags – Gravel bags or weighted fiber rolls shall be placed on the downslope edge of impervious surfaces, such as driveways. Place gravel bags in double row in a “U” shape.

6.14 Site Approval

Following placement of erosion control, CalRecycle and the City of Weed will approve each site as complete and ready for a building permit to be issued.

6.15 Final Reports

The CONTRACTORS or his third party consultant will prepare and submit a report for each property to CalRecycle summarizing the data evaluation, a final project report and develop a cost analysis formula to assist with the cost recovery of insurance and/or other funds. Final Reports are described in detail in section 3.3 of this document.

7 General Operation and Site Controls

7.1 Notices

The following notices, at a minimum, will apply to the project:

- The CONTRACTORS shall notify Underground Services Alert (USA) at least 48 hours prior to any excavation.
- The CONTRACTORS shall notify the CARB’s Asbestos NESHAP Program of any demolition of a partially destroyed structure within one working day.
- The CONTRACTORS shall notify the local fire department prior to commencement of work.
- The CONTRACTORS shall notify the local power provider prior to removal of any damaged structure to ensure the electrical power has been shut off.
- The CONTRACTORS shall contact all local utilities and acquire their shut off plans for utilities at the destroyed structures.
- The CONTRACTORS shall notify CalRecycle at least 48 hours prior to commencement of the cleanup project.
- The CONTRACTORS will use caution around all trees. Only trees identified and marked by a registered forester may be removed.
- If CONTRACTORS discovers household hazardous materials, the material will be segregated by the CalRecycle and/or the CONTRACTORS to a temporary on-site storage. As necessary the City of Weed will collect and transport HHW to the County facility at no charge to CalRecycle and or CONTRACTORS.

7.2 Dust Controls

The CONTRACTORS shall provide water or dust palliative, or both, to prevent dust nuisance at each site. ***Dust resulting from Contractor's performance of the work shall be controlled at all times during this project***. The Contractor will provide fire grade firefighting nozzles with shut off valves for dust control. Each removal crew will be provided at least one fire nozzle. These types of fire nozzles in past projects have proven successful in applying the appropriate amount of water to control dust.

7.3 Pre-Watering

The CONTRACTORS shall pre-water each impacted lot 48 to 72 hours in advance of the removal. The water shall be applied in a manner so not to generate significant runoff. Water may be applied using side spray from a water tender, hose line, or other method approved by Operations Chief.

7.4 Waste Load Controls

All loads shall have a tracking system to indicate material leaving the site.

All loads shall be wetted down before leaving the site. All loads shall be covered with a tarp; this includes metal debris. Ash and debris loads with be place in a plastic liner and seal before covering with a tarp. Concrete loads are exempt from a tarp provided the loads are wetted prior to leaving. If concrete loads generate dust, then the loads must be wetted and covered

7.5 Traffic Control

The CONTRACTORS will provide for all traffic controls established in the site specific health and safety plan and the community health and safety plan. Traffic controls and warnings standard to the construction industry and as required by the State of California motor vehicle code will be implemented on an as needed basis. Vehicles utilized for debris removal will be of legal weight according to the Cal/Trans State Standard Specifications (2002 Edition), Section 7-1.08 "Public Conveyance", Section 7-1.09 "Public Safety", Section 12 "Construction Area Traffic Control Devices". A traffic control plan for the project areas will be submitted prior to work being performed, and will be reviewed and approved by the Pacific States Environmental Contractors, Inc. project construction manager (CM). Traffic plans will be updated as needed to adjust for changing conditions on site and in the community. Updated traffic plans will be reviewed by the appropriate City representatives and communicated to all project personnel through the Daily Incident Action Plan.

All construction equipment working within the residential zones shall maintain a speed of **15 mph or less**.

The CONTRACTORS will also establish additional traffic controls as needed to control site vehicle traffic during specific site activities such as equipment movement, press events or visits by dignitaries.

7.6 Equipment Controls

All removal equipment supplied by the CONTRACTORS should have glass enclosures and weigh less than 80,000 lb. The goal is to use equipment that minimizes the impact to the local roadway while completing the removal. For example, excavators should be smaller than or equal to a 330 Caterpillar or equivalent and front end loaders should be small than or equal to a 950 Caterpillar or equivalent.

7.7 Pavement and Drainage Protections

The CONTRACTORS at all times will protect the edge of pavement and county drainage features to the extent feasibly possible.

7.8 Trackout Management

CONTRACTORS will implement procedures to prevent or cleanup carryout and trackout as specified below. The use of blower devices, or dry rotary brushes or brooms, for removal of carryout and trackout on public roads is expressly prohibited. The removal of carryout and trackout from paved public roads does not exempt an owner/operator from obtaining state or local agency permits which may be required for the cleanup of mud and dirt on paved public roads.

The CONTRACTORS shall prevent carryout and trackout, or immediately remove carryout and trackout when it extends 50 feet or more from the nearest unpaved surface exit point of a site and at the minimum remove all other visible carryout and trackout at the end of each workday.

Cleanup of carryout and trackout shall be accomplished by:

- Manually sweeping and picking-up; or
- Operating a rotary brush or broom accompanied or preceded by sufficient wetting; or
- Operating a PM10-efficient street sweeper

7.9 Cost Controls

CONTRACTORS and the Operations Chief shall update cost tracking of the removal on a weekly basis. The CONTRACTORS will be responsible for establishing a cost tracking spread sheet and system. For each property, the CONTRACTORS will track all direct labor, equipment, disposal, transportation, and erosion costs.

7.10 Potential Earthwork

No more than 50 cubic yards of clean soil will be placed on any one site without written authorization from the City of Weed and Operations Chief. If more than 50 cubic yards of material are necessary the CalRecycle engineer will apply for a grading permit. If fill material is necessary the soil shall be placed in thin lifts. Lifts shall not exceed 8 inches uncompacted and shall be applied within 3 percent of optimum moisture content or as directed by the Operations Chief. The lift shall be compacted with a target compaction of 90 percent of the maximum dry density as determined by ASTM D 1557.

8 Project Completion

The project will be considered complete after each lot has been compared to cleanup goals and approved by the unified command of the City of Weed and CalRecycle, erosion control placed, final observations are documented, and the invoicing and final reports are provided to the property owners.

8.1 Field Documentation

The Operations Chief will document the erosion control for each lot not building this winter. Additionally the Operations Chief will document the final site conditions at the close of the project.

8.2 Documentation

The environmental consultant will also be responsible for designing a final report to document each property cleaned up in CalRecycle sponsored cleanup. The report will document the removal with photo documentation, foundation square footage, impact from ash foot print (i.e., ash square footage), soil confirmation analysis, and total costs.

APPENDIX A
OFFICE OF THE GOVERNOR
EXECUTIVE ORDER B-27-14

WHEREAS on August 2, 2014, I proclaimed a state of emergency to exist in the State of California due to wildfires burning in Siskiyou County; and

WHEREAS on September 12, 2014, I issued an Executive Order regarding the fires burning in Northern California, including Siskiyou County; and

WHEREAS on September 17, 2014, I proclaimed a state of emergency to exist in the State of California due to new wildfires burning in Siskiyou County; and

WHEREAS the Federal Emergency Management Agency granted a Federal Fire Management Assistance Grant for the Boles Fire that burned in Siskiyou County; and

WHEREAS wildfires have burned thousands of acres of land, destroyed structures, including homes, damaged critical infrastructure, and forced the closure of major highways and local roads; and

WHEREAS the wildfires have created a substantial amount of ash, burnt vegetation, and other such debris over a large area of communities; and

WHEREAS this debris is threatening public health and safety, and must be removed and disposed of quickly and properly to ensure that the areas can be reoccupied safely; and

WHEREAS under the provisions of section 8571 of the Government Code, I find that strict compliance with the various statutes and regulations specified in this order would prevent, hinder, or delay the mitigation of the effects of the wildfires.

NOW, THEREFORE, I, EDMUND G. BROWN JR., Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, and in particular, sections 8567 and 8571 of the California Government Code, do hereby issue the following orders to become effective immediately:

IT IS HEREBY ORDERED THAT:

1. The Office of Emergency Services provide local government assistance, as appropriate, under the authority of the California Disaster Assistance Act, California Government Code section 8680 et seq. and California Code of Regulations, Title 19, section 2900 et seq.

2. State statutes, rules, regulations and requirements are hereby suspended to the extent they apply to the following activities: (a) removal, storage, transportation, and disposal of hazardous and non-hazardous solid waste and debris resulting from the wildfires that have burned and continue to burn in Siskiyou County and that are subject to the jurisdiction of agencies within the California Environmental Protection Agency and the California Natural Resources Agency; and (b) necessary restoration and rehabilitation of timberland, streams, rivers, and other waterways. Such statutes, rules, regulations and requirements are hereby suspended only to the extent necessary for expediting

the removal and cleanup of debris from the fires, and for implementing any restoration plan by Siskiyou County. Individuals who desire to conduct activities under this suspension of statutes, rules, regulations, and requirements shall first request that the appropriate Agency Secretary, or his delegate, make a determination that the proposed activities are eligible to be conducted under this suspension. The Secretary for the California Environmental Protection Agency and the Secretary for the California Natural Resources Agency shall use sound discretion in applying this Executive Order to ensure that the suspension serves the purpose of accelerating cleanup and recovery, while at the same time protecting public health and the environment. This order shall apply to, but is not necessarily limited to: solid waste facility permits, waste discharge requirements for storage and disposal; emergency timber harvesting; emergency construction activities; and waste discharge requirements and/or Water Quality Certification for discharges of fill material or pollutants. To the extent it is within their administrative authority, the boards, departments and offices within the California Environmental Protection Agency and the California Natural Resources Agency shall expedite the granting of other authorizations, waivers or permits necessary for the removal, storage, transportation and disposal of hazardous and non-hazardous debris resulting from the fires, and for other actions necessary for the protection of public health and the environment.

3. As necessary to assist local governments and for the protection of public health and the environment, state agencies shall enter into contracts to arrange for the procurement of materials, goods, and services necessary to quickly remove dangerous debris, repair damaged resources, and restore and protect the impacted watershed. Because strict compliance with the provisions of the Government Code and the Public Contract Code applicable to state contracts would prevent, hinder, or delay these efforts, applicable provisions of those statutes, including but not limited to travel, advertising and competitive bidding requirements, are suspended to the extent necessary to address the effects of the fires.

4. State agencies and departments within my administration shall work with local officials to assist them in establishing and implementing a comprehensive structural debris removal plan.

This Executive Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

I FURTHER DIRECT that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given to this Order.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 6th day of October 2014.

EDMUND G. BROWN JR.

Governor of California

ATTEST:

DEBRA BOWEN

Secretary of State

APPENDIX B

P. O. Box 470
Weed, CA 96094

(530) 938-5020
(530) 938-5096 (FAX)
www.ci.weed.ca.us

CITY OF WEED

RIGHT-OF-ENTRY PERMIT

[For Providing Debris Removal on Private Property]

I, _____(Owner), hereby permit the City of Weed, its officers, employees, agents, contractors and subcontractors (City), to enter upon Owner's property commonly identified as _____ City of Weed (Premises), subject to all licenses, easements, encumbrances, and claims of title affecting the Premises upon the following terms and conditions:

1. Grant of Right-of-Entry. Owner hereby grants City a right-of-entry (Permit) over the Premises for the purpose of inspecting the Premises, testing materials on the Premises, removing and clearing any of all fire-generated debris of whatever nature including but not limited to ash, vehicles, construction, debris, trees, waste or other materials from the Premises, subject to the terms and conditions set forth in this Permit. It is fully understood that this Permit does not create any obligation on the City to perform inspection, testing, or debris clearance. Owner understands that the City will undertake no cleanup action until this Right-of-Entry Permit is signed.

2. Private Insurance Coverage. Most homeowner insurance policies have coverage to pay for the costs of removal of wildfire-generated debris. Owner understands that in the event state financial assistance is received by the Owner for purposes of inspection, testing or debris removal hereunder, state law (Title 19, Division 2. California Governor's Office of Emergency Services, Chapter 6. Disaster Assistance Act) requires Owner to reimburse City for the cost of removing wildfire-generated debris to the extent covered in Owner's insurance policy. Owner also understands that, when requested, Owner must provide a copy of the insurance policy, proof/statement of loss and settlement agreement from Owner's insurance company to City.

Owner (_____ does, _____ does not) have homeowners or other similar insurance. If Owner indicates that Owner does not have such insurance, Owner certifies under penalty or perjury that there was no insurance in effect at the time of the fire which may provide coverage for the costs of inspection, testing or debris removal.

3. Duplication of Benefits. Owner (_____has, _____ has not) and (_____will, _____ will not) receive(d) any compensation for debris removal from any other source including Small Business Administration (SBA) individual and family grant program or any other public assistance program. Owner will advise City in writing within 10 days of receipt of any insurance settlement for debris removal. Owner further agrees to reimburse the City within 10 days of receipt of any insurance from such insurance proceeds for the cost of the debris removal conducted by the City. In the event the insurance proceeds are less than the cost of debris

removal incurred by the City, Owner will not be responsible for the difference. If the insurance proceeds exceed the City's costs of debris removal, Owner will keep any excess proceeds. Owner understands that all disaster related funding, including that for debris removal from private property, is subject to audit.

4. Hold Harmless. City shall not be liable for, and Owner shall indemnify and hold harmless City, the County of Siskiyou, the State of California, California Governor's Office of Emergency Services (Cal OES), California Environmental Protection Agency (Cal EPA), California Department of Resources, Recycling and Recovery (CalRecycle) and any of their officers, agencies, agents, contractors, subcontractors, employees and volunteers, against any and all claims, deductibles, self-insured retentions, demands liability, judgments, awards, fines, mechanics' liens or other liens, labor disputes, losses, damages, expenses, personal injury, charges or costs of any kind or character, including attorneys' fees and court costs (hereinafter collectively referred to as "Claims"), which arise out of or are in any way connected to actions arising out of this Permit, and hereby release, discharge and waive any claims and action, in law or equity, arising therefrom. Owner shall make Owner's best efforts to mark any sewer lines utilities, septic tanks and water lines located on the Premises.

5. No City Assumption of Liability for Remediation. In consideration of the assistance City is providing to Owner under this Permit at no cost to Owner, City assumes no liability or responsibility, and Owner shall not seek to recover from City, the County of Siskiyou, the State of California, California Governor's Office of Emergency Services (Cal OES), California Environmental Protection Agency (Cal EPA), California Department of Resources, Recycling and Recovery (CalRecycle) or any of their officers, agencies, agents, contractors, subcontractors, employees and volunteers, the costs of any remediation of damages to the Premises incurred due to action taken pursuant to this Permit.

6. City Agents. Any person, firm, or corporation authorized to work upon the Premises by the City shall be deemed to be City agent, including but not limited to the State of California, California Governor's Office of Emergency Services (Cal OES), California Environmental Protection Agency (Cal EPA), California Department of Resources, Recycling and Recovery (CalRecycle) and shall be subject to all applicable terms hereof.

7. Authority. If Owner is a not a person, Owner represents and warrants that it has full power and authority to execute this Permit on behalf of Owner, to bind Owner, and to fully perform Owner's obligations under this Permit pursuant to Owner's governing instruments, without the need for any further action, that the person(s) executing this Permit on behalf of Owner are the duly designated agents of Owner and are authorized to act on its behalf, and that fee title to the Premises vests solely in Owner.

8. Entire Agreement. This Permit constitutes the entire agreement between the parties with respect to the subject matter hereof, and all prior or contemporaneous agreements, understandings and representations, oral or written, are superseded.

9. Modification. The provisions of this Permit may not be modified except by a written instrument signed by both parties.

10. Partial Invalidity. IF any provision of this Permit is determined by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Permit

shall not be affected thereby if this Permit's primary purpose(s) can be carried out. Each provision hereof shall be valid and enforceable to the fullest extent permitted by law.

11. Successors & Assigns. This Permit shall bind and benefit the parties and their successors and assigns, except as may otherwise be provided herein.

12. Notices. Any notice required hereunder shall be provided as follows:

For the City:
Name: Ron Stock Department: City Administrator
Address: PO BOX 470 Weed, CA 96094
Phone: 530-938-5020
Email: stock@ci.weed.ca.us
For the Owner: Name: _____ Address: _____
Phone: _____

IN WITNESS WEREOF, Owner and City have executed this Permit effective as of_____ (date). CITY: City of Weed, A municipal corporation By:
_____

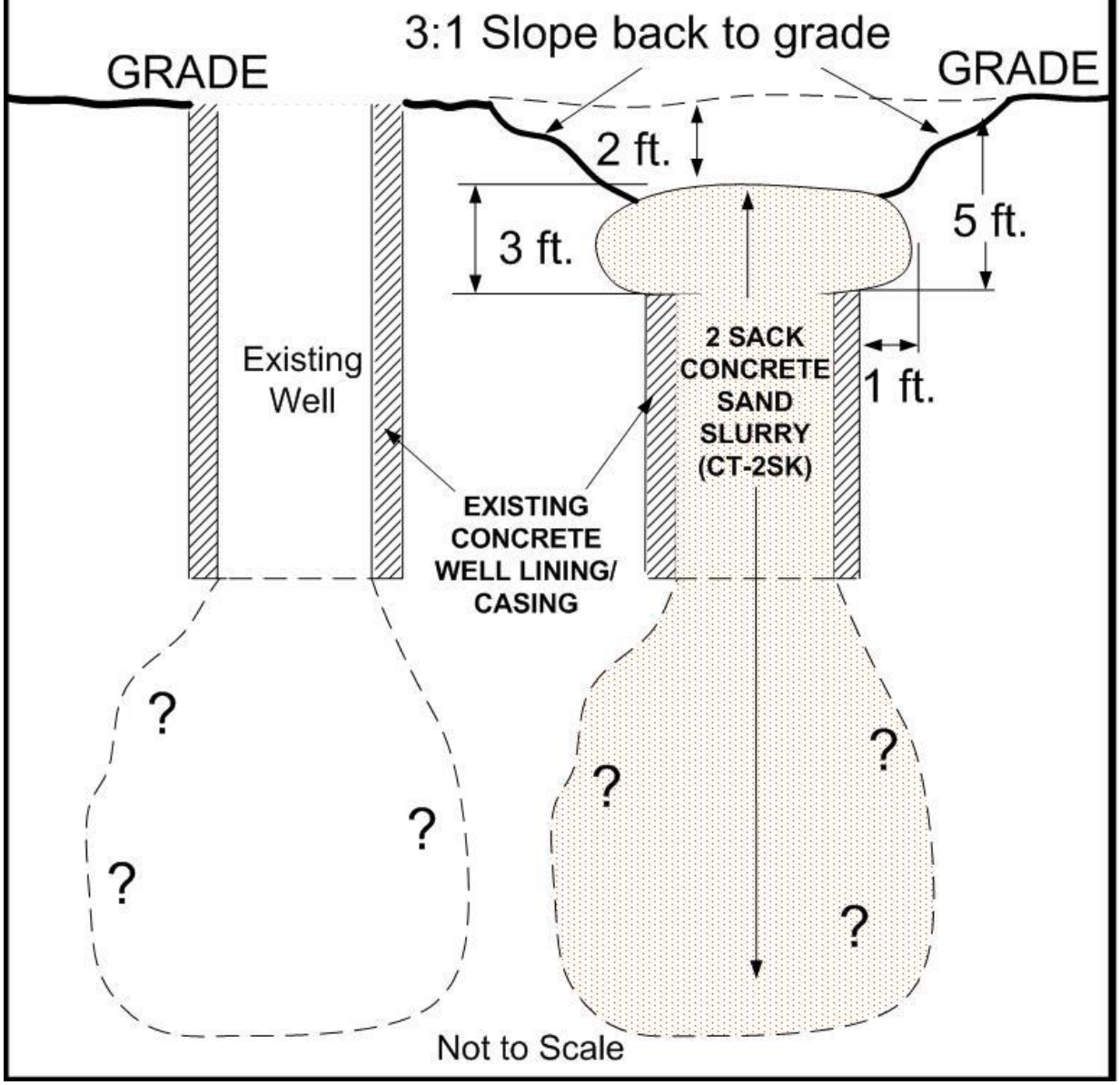
OWNER:
_____
By:
_____
(signature) Phone #1:
_____
Phone #2:
_____
Email:
_____

APPENDIX C
HAND-DUG WELLS

Boles Fire Old Hand Dug well Destruction Plan
(For all wells that are undermined below "lining")

1 Pour 2 sack sand slurry (CT-2SK), vibrate if necessary to insure void spaces are filled.
Fill well to 5 ft. below grade.

2 Allow concrete to set, then over excavate 1 foot beyond well lining and 5 ft. below grade.
Then pour 3 foot concrete mushroom cap .
Slope the sides 3:1 back to grade.

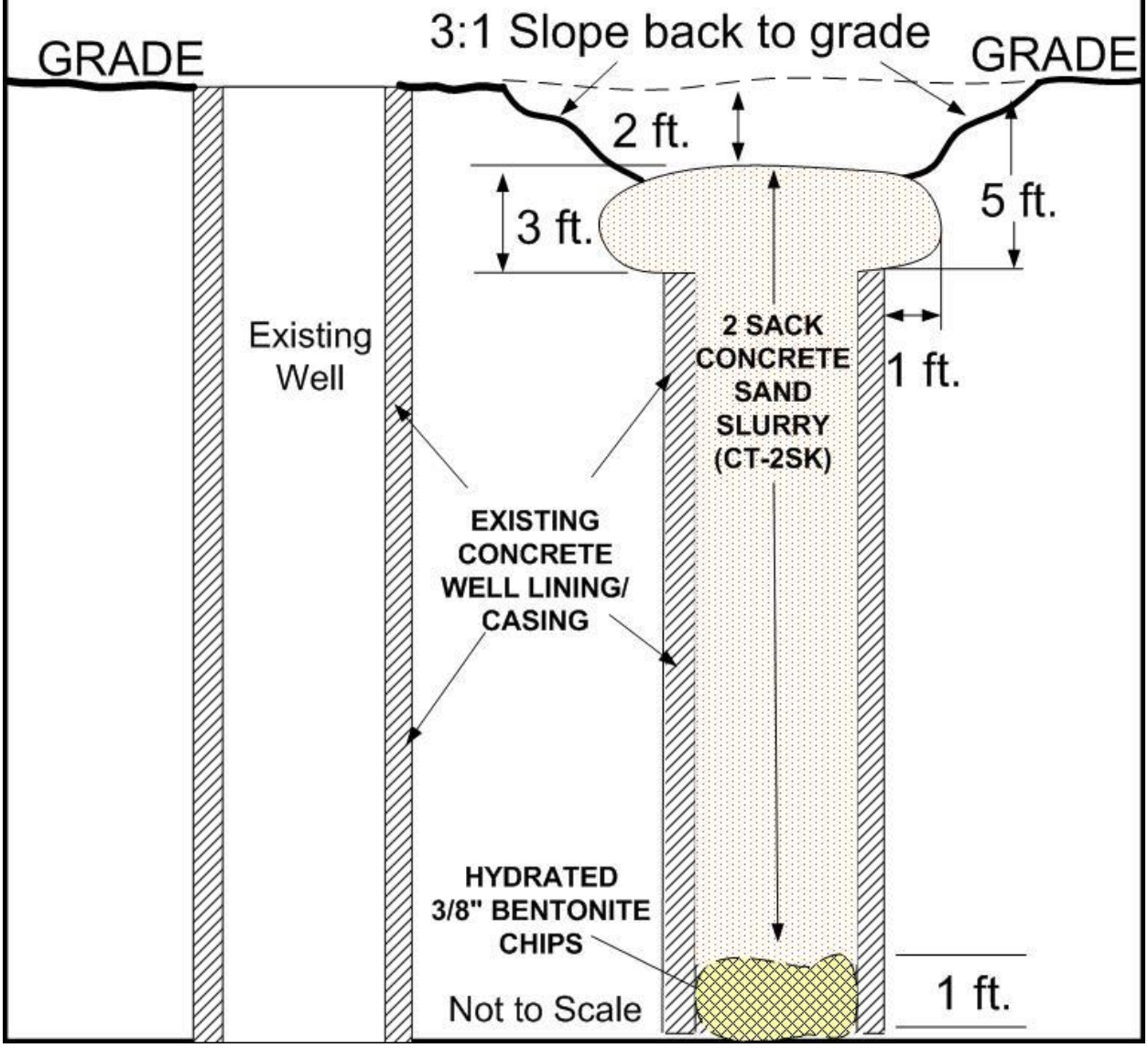


Boles Fire Old Hand Dug well Destruction Plan
(For all wells that are lined to the bottom)

1 Cascade 3/8 bentonite chips into the bottom of the hole with an excavator. Hydrate chips intermittently with 10 gallons of water/bag.

2 Pour 2 sack sand slurry (CT-2SK), Fill well to 5 ft. below grade.

3 Allow concrete to set, then over excavate 1 foot beyond well lining and 5 ft. below grade. Then pour 3 foot concrete mushroom cap . Slope the sides 3:1 back to grade.



Sousa Ready Mix, LLC
P.O. Box 157
Mt. Shasta, CA 96067

Concrete Mix Design

Contractor: Mercer - Fraser
Project: Caltrans
Plant: Mt. Shasta
Aggregate Source: Springhill Quarry

Mix Design Number: 2.0 SK sand slurry
6/29/2012 CT 2 SK SL

Mechanical analyses percent passing U.S. standard sieve

Sieve	2"	1 1/2"	1"	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200
3/8" x #4	100%	100%	100%	100%	100%	10%	3%	3%	2%	2%	2%	1%
Concrete Sand	100%	100%	100%	100%	100%	97%	80%	66%	50%	31%	11%	2.5%
Combined	100%	100%	100%	100%	100%	97%	80%	66%	50%	31%	11%	2.5%
"x" Values			n/a	75	15			66	43	17		

Sack Content: 2.00 Sack
Specified Strength: psi
Entrained Air: none
W/Cm Ratio: 2.50
Slump: 6"-8"
Cement Type: Type II-V
Admixtures:
Water Reducer

Material		Specific Gravity	Density lb/ft³.	S.S.D. Weight	Vol. ft³
3/8" x #4	0%	2.340	146.02	0 lb	0.00
Concrete Sand	100%	2.537	158.31	2802 lb	17.70
Cement		3.15	196.56	188 lb	0.96
Fly Ash		2.32	144.77	0 lb	0.00
Water		1.00	62.40	470 lb	7.53
Entrapped Air	3.0%				0.81
Total	Unit Weight =	128.2 pcf		3460 lb	27.00

Note: Based upon aggregate in saturated surface dry conditions. Correction necessary for free moisture on aggregates.

The above mix is based on the consideration that the compressive strengths will equal or exceed the strength shown above when cylinders are taken, handled and cured in accordance with ASTM (C-31). If the correct procedures for testing are not followed or if the water/cementitious materials ratio is exceeded, this mix as shown above cannot be expected to produce the desired properties.

Submitted by _____ Date: _____

APPENDIX D
STRUCTURAL DEBRIS REMOVAL FORMS

WEED INCIDENT STRUCTURAL DEBRIS REMOVAL

CONFIRMATION SAMPLING

UNIFIED COMMAND APPROVAL FORM

SITE ADDRESS:_____

Sample Identification:_____ Number of Samples:_____

Date Sample Collected:_____Laboratory:_____

Cleanup Goals: See Metals Cleanup Goals for the Boles Fire Site in Weed, California. The metal goals are based on 2x the calculated soil background, US EPA Regional Screening Levels, and/or the California Environmental Protection Agency (CalEPA), California Human Health Screening Levels (CHHSLs; 2009).

Date Approved:_____

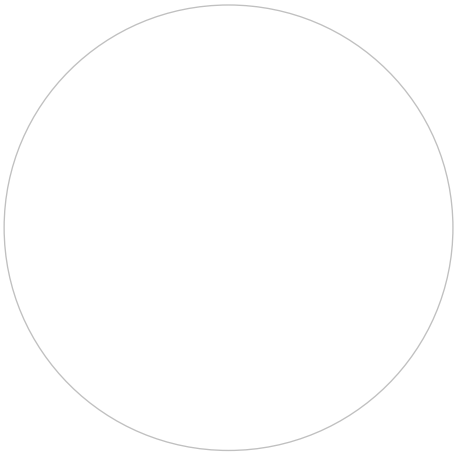
Observations:

_____

_____

_____

_____



_____ _____

Todd Thalhamer, P.E.

CalRecycle, Operations Chief Planning Chief

WEED INCIDENT STRUCTURAL DEBRIS REMOVAL

Underground Storage Tank (UST)

CONFIRMATION SAMPLING

UNIFIED COMMAND APPROVAL FORM

SITE ADDRESS:_____

Sample Identification:_____ Number of Samples:_____

Date Sample Collected:_____ Laboratory: _____

Cleanup Requirements: The cleanup goal for UST's discovered at the Boles Structural Debris Removal Program will be based on County of Siskiyou's Ordinance Code for Underground Storage Tanks. The cleanup requirements for USTs will be less than 100 mg/kg for Diesel C10-C24 and non-detect for BTEX per LUFT guidelines.

Size of the Tank:_____ Water Present (Y/N): ___ Number of Samples___

Date Approved:_____

Observations:

_____

_____

_____

_____ _____

Todd Thalhamer, P.E.

CalRecycle, Operations Chief Planning Chief

WEED INCIDENT STRUCTURAL DEBRIS REMOVAL

Erosion Control Work Sheet Date: _____

SITE ADDRESS:_____

Level of Erosion Control per Erosion Control Work Group: Level ____ (1, 2, 3, 4)

Observations:

_____

_____

_____

N
T
S

Todd Thalhamer, P.E.

CalRecycle, Operations Chief

WEED INCIDENT STRUCTURAL DEBRIS REMOVAL

ENGINEER'S OBSERVATIONS

Road Damage Survey for the Boles Incident Area

Date: Pending

Observations:

The following road survey was performed by the CalRecycle Operations Chief who is also a licensed civil engineer in the State of California. The initial road survey conducted on xxx, indicated x areas that should be repaired and/or replaced due to impacts from the Incident directly or indirectly from the x shipments of debris, concrete, and metal. These observations are only recommendations to County of Siskiyou.

Todd Thalhamer, P.E.

CalRecycle, Operations Chief

WEED INCIDENT STRUCTURAL DEBRIS REMOVAL

ENGINEER'S OBSERVATIONS

SITE ADDRESS:_____ Date:_____

Confirmation Sampling Approved ☐ No ☐ Yes (See Confirmation Sampling Form)

Building ☐ No ☐ Yes Status _____

Erosion Control Level/BMP (1, 2, 3, 4) _____ (See Erosion Control Form)

Building over erosion control ☐ No ☐ Yes

Tree(s) Removed ☐ No ☐ Yes _____

Debris Removal Project Approved ☐ No ☐ Yes

Noted Observations:

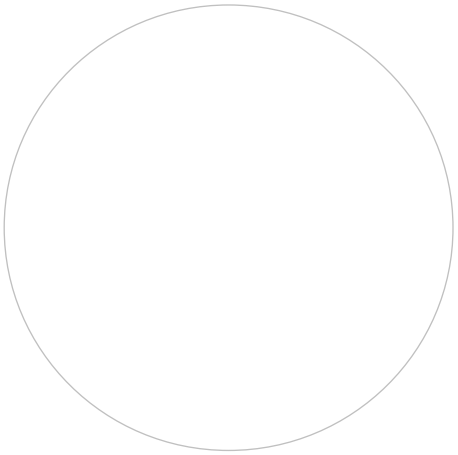
_____

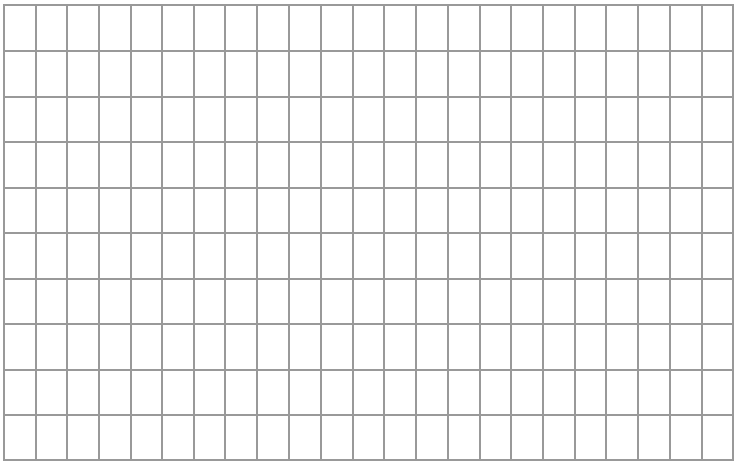
_____

_____

_____

_____





_____

Todd Thalhamer, P.E.,

CalRecycle, Operations Chief

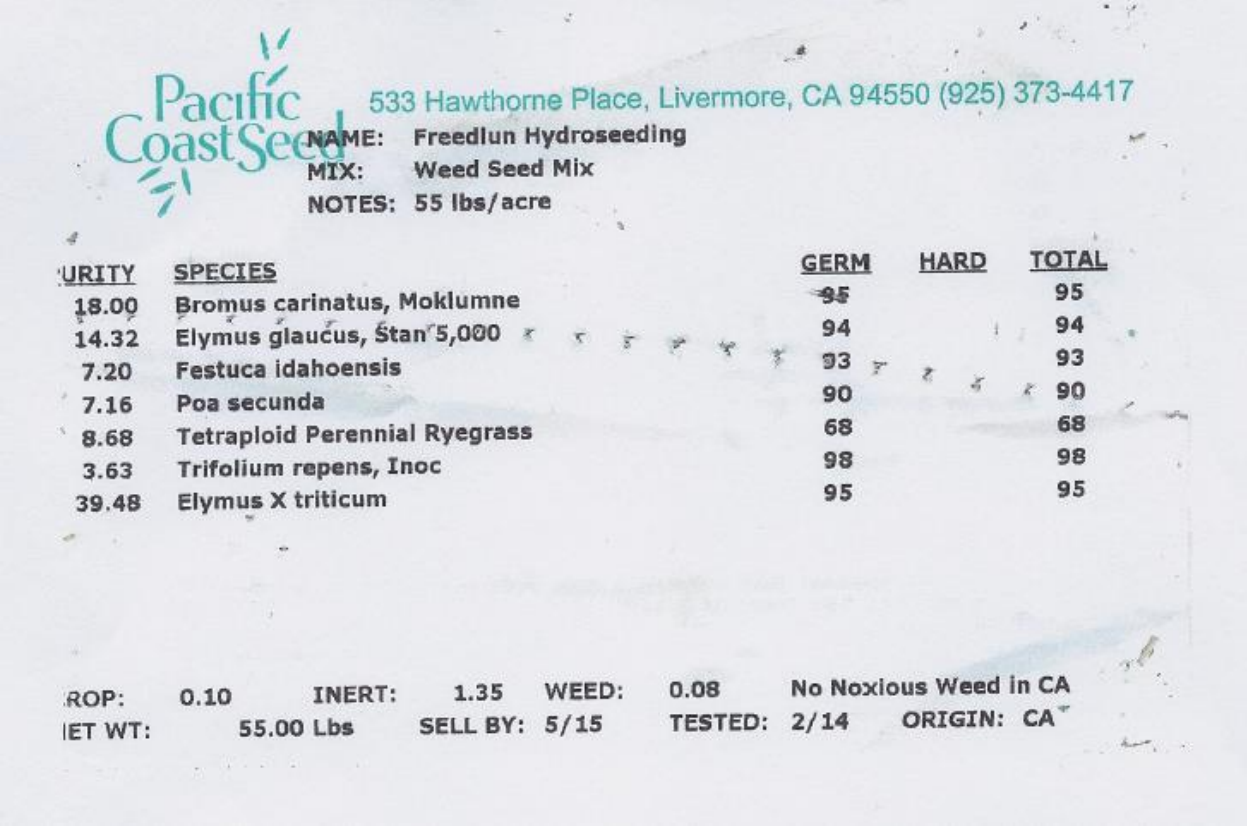
APPENDIX E

Hydroseeding Specification

Hydrostraw with Guar @ 3,500 lbs/acre
Organic fertilizer 5-3-2 @ 400 lbs/acre

Seed Mix:

- Regreen Sterile Wheatgrass @ 22 lbs/acre
- CA Brome @ 10 lbs/acre (higher elevation)
- Blue Wildrye @ 8 lbs/acre (higher elevation)
- Squirrel Tail @ 5 lbs/acre
- Blue Bunch Fescue @ 4 lbs/acre
- Sandberg Bluegrass @ 4 lbs/acre
- Spanish Clover @ 2 lbs/acre



Pacific Coast Seed
533 Hawthorne Place, Livermore, CA 94550 (925) 373-4417

NAME: Freedlun Hydroseeding
MIX: Weed Seed Mix
NOTES: 55 lbs/acre

URITY	SPECIES	GERM	HARD	TOTAL
18.00	Bromus carinatus, Moklumne	95		95
14.32	Elymus glaucus, Stan 5,000	94		94
7.20	Festuca idahoensis	93		93
7.16	Poa secunda	90		90
8.68	Tetraploid Perennial Ryegrass	68		68
3.63	Trifolium repens, Inoc	98		98
39.48	Elymus X triticum	95		95

ROP: 0.10 INERT: 1.35 WEED: 0.08 No Noxious Weed in CA
ET WT: 55.00 Lbs SELL BY: 5/15 TESTED: 2/14 ORIGIN: CA

Appendix F

Acronyms and Abbreviations

ASTM	American Society for Testing and Materials
BMP	Best Management Practices
CalEPA	California Environmental Protection Agency
CalOES	California Office of Emergency Services
CalRecycle	Department of Resources Recycling and Recovery
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CHHSL	California Human Health Screening Levels
DROC	Debris Removal Operations Center
EPA	Environmental Protection Agency
HFCs	Hydrofluorocarbons
HCFCs	Hydrochlorofluorocarbons
HHW	Household Hazardous Waste
ICS	Incident Command System
NES	Network Environmental Systems, Incorporated
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NIOSH	National Institute for Occupational Safety and Health
PCBs	Polychlorinated Biphenyls
PE	Professional Engineer
PM	Particulate Matter
PRC	Public Resources Code
REHS	Registered Environmental Health Specialist
USA	United States of America
USEPA	United States Environmental Protection Agency
USTs	Underground Storage Tanks
UXO	Unexploded Ordinance